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"CONTROLLING THE GLOBAL AND FAST-MOVING MARKET OF OTC DERIVATIVES: A POSSIBLE OBJECTIVE?"

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Ringrazio la mia famiglia per aver creduto in me e in ogni mia scelta, e per avermi sempre dato il sostegno senza il quale non avrei mai raggiunto questo importante traguardo.

"Nulla di ciò che si ottiene senza dolore e senza lavoro è veramente prezioso."

Joseph Addison

ABSTRACT

"Nessuna economia può prosperare se nessuno è disposto a correre dei rischi" (EC, 2009). Basta pensare ad un imprenditore che quando avvia un'impresa si assume il rischio che questa possa fallire. Tuttavia, a nessuno piace assumere un eccessivo rischio, e per questo è auspicabile condividere i rischi.

Ripartire o distribuire i rischi è quello che esattamente fanno i derivati, i quali possono essere usati o come una protezione contro i rischi (i.e. *hedging*) o come strumenti per prendere posizioni speculative. In particolare, il mercato dei derivati *over-the-counter* (OTC) consente di concretizzare questi usi attraverso un'ampia varietà di prodotti, e soprattutto, questi contratti scambiati fuori borsa forniscono quella flessibilità essenziale per gli innumerevoli e non standardizzati rischi generati nell'economia reale.

Lo scopo di questo lavoro è quello di prestare particolare attenzione al modo in cui il mercato dei derivati OTC potrebbe funzionare e apparire nei prossimi anni, dal momento che i recenti tempi critici nei mercati finanziari hanno sottolineato la necessità di controllare questo mercato globale e in rapida evoluzione al fine di garantire la stabilità del sistema finanziario, e in definitiva dell'economia nel suo complesso.

La rivoluzione regolamentare riguardante il mercato OTC a livello mondiale sarà analizzata mettendo in evidenza che l'arduo compito di ridurre il rischio sistemico non coinvolge solo le autorità di regolamentazione e i responsabili delle politiche, ma anche altri rilevanti enti: la *International Swaps and Derivatives Association, Inc*. (ISDA), che già agli inizi del mercato dei derivati OTC ha sviluppato la loro documentazione standardizzata; e i tribunali, dove i giudici interpretano e decidono se applicare i contratti derivati.

Lo studio del marcato dei derivati OTC sotto diversi aspetti ha consentito di individuare l'intenzione di aumentare la fiducia nel mercato dei derivati OTC attraverso un approccio *ex-ante,* che coinvolge da una parte la regolamentazione pubblica a seguito della recente crisi finanziaria e dall'altra gli *ISDA Master Agreements* attraverso i quali l'associazione privata ISDA esercita un certo controllo del settore. Inoltre, il ruolo dei giudici nella risoluzione di contenziosi circa complesse transazioni finanziarie non è da trascurare perché con il loro intervento *ex-post* , se non esatto, possono generare rischi per il mercato.

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INTRODUCTION

"No economy can flourish if no-one is willing to take risk."[1] When an entrepreneur starts up a business, he is taking the risk that the business may fail, as well as a bank that lends money to him may not receive the entire repayment of its loan. But nobody likes being exposed to excessive risk and it is therefore desirable to share risks.

Derivatives share or re-distribute risks, and they can be used as protection against a specific risk (i.e. hedge) or, as a tool to take speculative positions. In particular, the over-the-counter (OTC) derivatives market allows to materialize these uses through an impressive range of derivative types. More importantly, these off-exchange traded contracts provide the flexibility essential to the countless and non-standardized risks generated in the real economy. Indeed many companies in all countries and in all industries use OTC derivatives to hedge effectively their business and financial risks.

Unfortunately, the strong growth observed in the OTC derivatives market since the early 2000s has also been accompanied by less respectable uses of such versatile contracts: many market participants pursuing non-economic aims through these instruments make the financial markets crisis-prone. The outbreak of the global financial crisis (2007-2008) proved strongly this aspect.

The purpose of this dissertation is to pay serious attention to how the OTC derivatives market might work and appear in the next few years, since the recent critical times in the financial markets have stressed the need to control this global and fast-moving market in order to ensure stability of the financial system and ultimately of the economy as a whole.

The worldwide regulatory revolution regarding the OTC market will be analyzed highlighting that the hard task of mitigating systemic risk does not involve only regulators and policy makers, but also other relevant entities: the International Swaps and Derivatives Association, Inc. (ISDA), which in the infancy of the OTC derivatives market already developed their contractual standardization; and the public courts, where judges interpret and decide whether enforcing derivatives contracts.

In the present study will first be described the OTC derivatives market, benefits and risks of its products, and how it is changing following the G20 Pittsburgh Summit (September 24-25,

[1] European Commission, *Ensuring efficient, safe and sound derivatives markets, {SEC(2009) 905 final} {SEC(2009) 914 final}.* Communication, Brussels, 3.7.2009 COM(2009) 332 final. Available at <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52009DC0332>.

2009) where international guidelines concerning the OTC derivative reform were set. Moreover, the regulatory regimes of OTC derivatives will be closely examined in the two largest financial markets in the world, that is, the European and US markets, with particular attention to the rules attempting to shift the OTC derivatives market from a bilateral one to a public exchange-style market.

Then in the second chapter is introduced the transnational private trade association, known as ISDA, that produced the cross-border standard documentation accepted by the entire OTC derivatives industry. It will be reported how the Association has achieved resounding success, and how the latter allowed it to take a lead role in regulatory matters as well as in the development of legal certainty for OTC derivatives. However, one of its most important achievements has definitely been the ISDA Master Agreement, which has facilitated by means of its structure the quick expansion of the market. On the other hand, besides great benefits, the widespread usage of ISDA Master Agreements across the world can also entail considerable side effects.

In the last chapter, showing three selected court cases involving OTC derivatives, it will be pointed out the fact that conflicting rulings can often arise when judges have to relate principles of law and regulations which are national to real world facts that are international and, at the same time, they have to understand complex financial transactions in addition to interpret the ISDA Master Agreement and related documents. In other words, the role of judges in the OTC derivatives market should not be neglected, since contradictory court decisions remaining law generate especially in the short term high uncertainty among market participants.

Given the size and the global nature of the OTC derivatives market, it is clearly unlikely to reform it without any difficulties, but attempting to reduce this market to a small residual category does not seem a lot more possible.

CHAPTER 1
THE OTC DERIVATIVES MARKET

1.1 A BRIEF HISTORY OF DERIVATIVES

Derivatives contracts are an integral part of the global financial markets, enabling users to transfer and redistribute risks generated in the real economy. As their name implies, these financial instruments derive their value from some underlying asset upon which they are based (the *underlying*). For instance, a call option, which gives the buyer the right (but not the obligation) to buy an agreed quantity of an underlying asset, is a derivative. Indeed, if at the exercise date of the option, the option contract states that the holder may purchase a share of common stock for $3, and the market price of the stock is $4, the option is worth $1 because it gives the option-holder the right to buy something worth $4 for $3, a $1 savings. Hence the term *derivative.*

Although it is difficult to know exactly when the first derivative instrument was created, derivatives contracts in various forms have been used for centuries. Originally, most derivatives fixed a price in the future at which the right-holder agreed to buy a given quantity of an agricultural commodity (e.g. the Greek olive oil future or the Dutch tulip future); however only in the 1730s it was possible to see the first futures exchange market: the Dōjima Rice Exchange in Japan. Then, beginning in 1864, the first standardized futures contracts were introduced in the Chicago Board of Trade, where the U.S. farmers and grain merchants gathered to hedge price risk in corn, wheat and other grains. Though futures contracts were first executed for the agricultural sector, there has been a continual expansion of this category of derivatives from the trading of metal and energy products to financial futures on government securities, private debt issues, foreign currencies and stock indexes.

Since the inception, excessive speculation, fraud and manipulation entailed poor transparency to the formation of futures prices. For this reason in 1934 President Roosevelt introduced a legislation, which became the Commodity Exchange Act of 1936 (CEA), saying: "It should be our national policy to restrict, as far as possible, the use of these [futures] exchanges for purely speculative operations."[2] Since then all futures contracts were required to be traded on an exchange, that is a centralized trading venue where prices are publicly displayed, and to be

[2] *See* GREENBERGER, Michael, 2011. Overwhelming a Financial Regulatory Black Hole with Legislative Sunlight: Dodd-Frank's Attack on Systemic Economic Destabilization Caused by an Unregulated Multi-Trillion Dollar Derivatives Market. *Journal of Business & Technology Law*, 6 (1), p. 129.

booked with a central counterparty (CCP) known as clearing house. The terms of a futures contract (amount and type of the underlying asset, maturity dates, payment methods, and delivery arrangements) are standardized for each form of contract; a CCP, being between buyer and seller of a future, bears most of the credit risk, and so it has a strong incentive to enforce strictly the capital adequacy of the counterparties, i.e., regular measurements of the market prices of futures positions and immediate collection of two types of margin: 'initial margin', the upfront amount of collateral posted to the clearing house by both parties in every trade and held as protection against the risk of default; in addition 'variation margin' reflects the daily changes in market value of open futures contracts, which are paid to or received from the CCP. Therefore the clearing houses, intermediating transactions, dampen risks (in particular credit risk), improve transparency and increase efficiency in the financial markets where they operate. Finally, the clear physical presence of exchange-traded futures in a particular jurisdiction implies that they are usually subject to a single regulatory regime.[3]

Nowadays futures are traded all over the world and their name also refers to all standardized, "listed" derivatives, e.g., exchange-traded options and products having the various characteristics described above. In other words, this broad category of futures contrasts with non-standardized, customized derivatives, which are traded off-exchange, i.e., over-the-counter (OTC) and are sometimes called swaps. A swap is a bilateral agreement to exchange streams of cash flows (the legs of the swap) in the future. The cash flows are calculated by reference to a notional amount and usually the calculation involves the future value of an interest rate, an exchange rate, or other market variable.

The first variant of futures contracts, namely currency swap, was developed in the late 1970s to bypass particular currency restrictions in the United Kingdom, but the first swap agreement, introduced to the public, was an interest rate swap between IBM and the World Bank in 1981. The OTC derivatives were generated in response to market request for derivatives that could be tailored more than what was provided in the exchange-traded market. Thus, during the 1980s many large financial institutions left roles of matchmakers to act as market makers for swaps, i.e. swap dealers who are always prepared to enter into swaps for their own account by quoting simultaneous bid and offer prices (the prices at which they buy and sell respectively). Market makers take the risk of holding a certain number of swaps without having offsetting swaps with other counterparties in order to create liquidity and efficiency in that market. Hence they are vital to the trade in OTC derivatives.

[3] INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, Inc., S.d.. *ISDA Product Descriptions and FAQs.* Available at <http://www.isda.org/educat/faqs.html> [Access time: January 2015].

The most commonly traded and most liquid swap is known as 'plain vanilla' interest rate swap (IRS), which exchanges – or swaps – fixed-rate interest payments for floating-rate interest payments based on a reference rate (usually Libor). However, interest rate swaps, being traded OTC, can be structured in a huge number of varieties to meet the precise needs of the counterparties. An example is an IRS that exchanges one floating rate for another floating rate, or an IRS with legs in different currencies.

Therefore a key advantage of the OTC market is that the terms of a contract do not have to be those specified by the exchange but they are subject to free negotiation by the parties (product innovations characterize this market). On the other hand, a very important concern for bilaterally cleared OTC derivatives is the counterparty credit risk: OTC derivatives are booked directly between the two counterparties, which therefore assume credit exposure to each other (for all OTC trades a counterparty is generally a dealer). Credit risk arises from the possibility that a party on the other side of an OTC trade will default and, in the OTC market, measures to reduce this risk, such as collateralization, are also subject to negotiation between the parties. To summarize, given the OTC market structure, swaps have less reliable public information and more intricate counterparty relations than derivatives traded on a regulated exchange.[4]

Moreover, OTC derivatives trading in the predominant markets of the U.S. and the U.K., at first, ran the risk of violating legislation prohibiting off-exchange trading and/or wagering and/or insurance regulations, that is, all the rules which maintained derivatives speculation under control. That because swaps contracts, being negotiated privately between the two parties, did not easily conform with the features of exchange-traded derivatives, and so legal uncertainty arose among market participants[5]. In that case the U.K. reaction was the passage of the Financial Services Act 1986, which removed the oversight of the court on all derivatives contracts, even if speculative, guaranteeing the enforceability of OTC trading in the country. Whereas the U.S. Commodity Futures Trading Commission (CFTC)[6], spurred by finance industry representatives and notably by the major global dealers, provided in 1989 a "safe harbour" from federal regulation for most swaps products. And shortly after, in 1992, Congress officially authorized the CFTC to exempt various OTC agreements from the CEA's exchange-trading requirement. As a result, the following year the CFTC, pursuant to its new

[4] *See* European Commission, *supra* note 1. However, these topics will be analyzed in the following paragraph.

[5] BIGGINS, John, 2012. 'Target Touchdown' and 'Partial Liftoff': Post-Crisis Dispute Resolution in the OTC Derivatives Markets and the Challenge for ISDA. *German Law Journal* [online], 13 (12), p. 1304. Available at <http://www.germanlawjournal.com/pdfs/Vol13-No12/PDF_Vol_13_No_12_1297-1328_Articles_Biggins_FINAL.pdf> [Access time: February 2015].

[6] Regulatory agency created in 1974, when commodity futures were the main type of derivatives trading. Then, in 1982, the CFTC obtained the jurisdiction over all futures contracts including financial derivatives.

power, granted exemption from the CEA to all derivatives without the trading characteristics of exchange-traded standardized futures contracts.

Since then the derivatives market has grown exponentially, becoming highly complex and diversified, with the swaps contracts in a position of central importance. As the CFTC observed:

> According to the most recent market survey by [the International Swaps and Derivatives Association (ISDA)], the notional value[7] of the new transactions reported by ISDA members in interest rate swaps, currency swaps, and interest rate options during the first half of 1997 increased 46% over the previous six-month period. The notional value of outstanding contracts in these instruments was $28.733 trillion, up 12.9% from year-end 1996, 62.2% from year-end 1995, and 154.2% from year-end 1994. ISDA's 1996 market survey noted that there were 633.316 outstanding contracts in these instruments as of year-end 1996, up 47% from year-end 1995, which in turn represented a 40.7% increase over year-end 1994 […].[8]

Besides, the first credit derivatives date from 1994 when executives at JPMorgan invented a further[9] tool for hedging credit exposure on a 'reference entity', e.g. a company getting loan from a bank, which, being subject to a possible 'credit event', buys this new form of insurance (the credit default swap, CDS, a type of credit derivative) to protect itself against the risk of default by its debtor and the 'protection seller' undertakes to compensate the bank ('protection buyer') when the default occurs.

Throughout the 1990s there was also a number of economically important entities, placed not only in the U.S., which were heavily struck by major OTC derivatives trading losses. It is worth mentioning the financial failure of Orange County in December 1994, one of the most prosperous counties in the U.S. at that time. It suffered losses of around $1.7 billion due to a badly understood and too risky investment in interest rate swaps. Another severe loss, regarding two highly leveraged IRSs, was incurred by Procter & Gamble Co. in April 1994. The private institution also undertook legal action against Bankers Trust, an OTC derivatives dealer and its counterparty, in an attempt to escape from the large due payments.[10] However the court rejected the claim that Bankers Trust owed Procter & Gamble fiduciary duties (as the disclosure of risks related to the derivatives trades), deeming that both parties were principals in the swaps transaction, and finally Procter & Gamble lost $157 million.

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[7] Being the underlying amount in a derivatives trade, it is specified in the contract and used to price payments on that derivative.

[8] *See* GREENBERGER, M., *supra* note 1, p. 136.

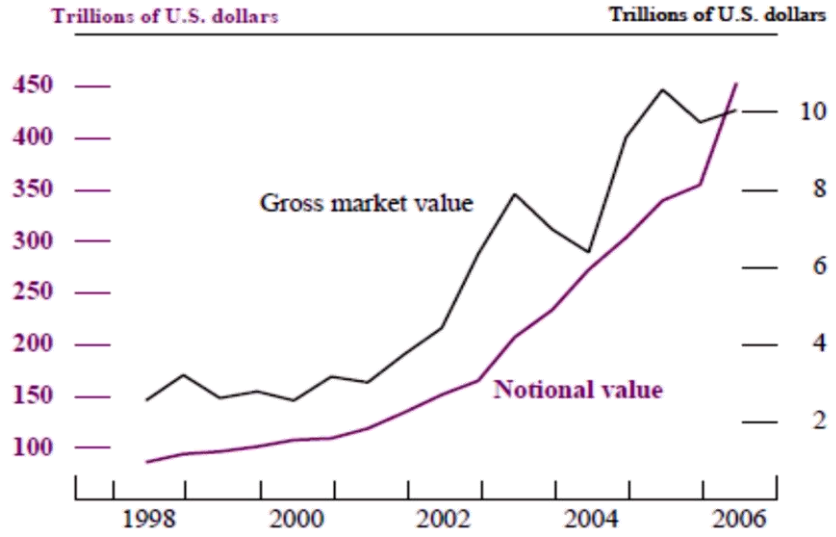
[9] With respect to the prior loan syndication and securitization.

[10] FLANAGAN, Sean M., 2001. The Rise of a Trade Association: Group Interactions Within the International Swaps and Derivatives Association. *Harvard Negotiation Law Review* 6.

In 1998, the CFTC was so concerned about both the growth at very substantial rates of the swaps market and the many consequently caused financial calamities that it issued a concept release expressing its intentions to exert regulatory authority over off-exchange traded derivatives (implying that these products might be traded in violation of law). Immediately after the well organized and politically powerful finance industry lobbied successfully for restriction of the CFTC's regulatory authority and for "legal certainty" to all OTC derivatives transactions between 'eligible contract participants', that is, counterparties having more than $10 million in total assets with exceptions granting lower values in favour of those using the contracts for hedging aims.[11] Indeed, on December 15, 2000, the tormented Congress enacted the Commodity Futures Modernization Act of 2000 (CFMA), which not only gave an enforceability guarantee to OTC derivatives trading, but also exempted OTC derivatives between 'eligible contract participants' (most of financial derivatives activity) from all provisions of the CEA.

This sweeping change in the U.S. legal infrastructure, underpinning the derivatives market, removed any bars on fraud, market manipulation and excessive speculation. Furthermore, the CFMA of 2000 closed any debates about the OTC derivatives market regulation by formal bodies, and so, at the finance industry was allowed to control the complex market. Confidence in the power of the industry to check risks and trust in the benefits of financial innovation brought regulators to this aware inaction, which along with increased globalization and economic growth entailed an unwieldy proliferation of derivatives transactions (Figure 1.1).

Figure 1.1 THE BOOM IN DERIVATIVES TRADING, 1998-2006



[Source: website http://www.federalreserve.gov/pubs/bulletin/2007/07index.htm]

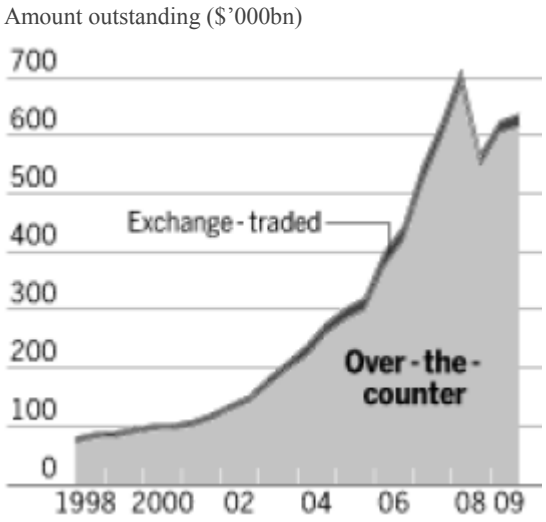
[11] *See* GRENNBERGER, M., *supra* note 1, p. 142.

The data, collected by the Bank for International Settlements (BIS), show the explosive growth from June 1998 to June 2006 of the derivatives market through two measures of market size: _by the notional value (see text note 6) the market expanded from $87 trillion to $454 trillion (the lower and upper limit of purple line); _by the gross market value[12], which corresponds to the sum of the absolute values of all open contracts with either positive or negative mark-to-market (i.e. the amounts that would be paid and received by the counterparties in the event of early termination of the derivative), the derivatives market grew from $3 trillion in June 1998 to $10 trillion in June 2006 (extremes of the black line).

1.2 BENEFITS AND RISKS OF OTC DERIVATIVES

The strong growth observed in the derivatives market led this market to be today one of the biggest in the world, with notional amounts outstanding of $764,955 billion according to the BIS statistics at end-June 2014. Interestingly, the bulk of derivatives contracts is traded in the private part of the financial markets, that is in the over-the-counter (OTC) derivatives markets. As shown in Figure 1.2, the OTC market enlarged rapidly in the last few years and it contracted during the 2008 financial crisis for the first time since surveys started in 1998. Especially OTC contracts accounted for 96.6 per cent of the whole derivatives market at the end of 2009 (before any new change in related reforms was introduced) and just 3.4 per cent were fully standardized derivatives instruments traded on exchanges.

Figure 1.2 THE PRIMARILY PRIVATE DERIVATIVES MARKET



[Source: website http://www.ft.com/intl/cms/s/0/fa3794be-a57b-11df-a5b7-00144feabdc0.html#axzz3XlnYNgqh]

[12] Unlike the notional values, gross market values supply information about the potential scale of market risk in derivatives transactions and of the associated financial risk transfer taking place. See www.bis.org.

To understand the dramatic growth in the OTC market it is necessary to analyze the reasons for which OTC derivatives market participants transact, and the positive and negative results of the evolution in financial engineering which has driven this rise in privately traded derivatives contracts.

First of all the OTC derivatives market is global, comprises participants from all parts of the world and its bespoke products, being mainly governed by contractual agreements between the parties, are transacted across jurisdictional borders. Accordingly, the OTC markets, by their nature, are networks of trading relationships focused on large professional investors, which act both as prime brokers (counterparty risk taker and leverage provision) and market makers (product structuring and liquidity provision).[13] The general public, not considered sophisticated enough to manage the specific risks, has not direct access to the OTC market. The broker-dealers quote prices to each other (creating inter-dealer market) and to their customers (i.e. the buy side), which are usually financial institutions (e.g. large institutional parties such as hedge funds and other types of investment funds), but also non-financial institutions such as corporations, insurance companies and even government entities.

In general these market participants use derivatives for hedging, speculating and arbitrage purposes. Hedgers are concerned about their position where they face the risk from future movements in market variables as well as the credit risk. Thus they protect themselves against potential losses using derivatives contracts, which provide insurance and neutralize risk. Derivatives instruments can also be used to speculate on the direction of certain market prices or even on the occurrence of a particular event. In effect speculators take positions on the future value of the underlying,[14] i.e. they accept risks that someone else wants to transfer, because they are confident they will gain trading profits which reward them for the exposures to risk. Therefore speculators add liquidity into the derivatives markets. Finally, arbitrage is another widespread activity within derivatives traders, who, in that case, exploit a gap between prices in different markets. In other words, arbitrageurs detect the economic similarity between assets financial markets have currently priced differently, and then, they take positions on their possible price convergence to lock in a riskless profit.

Summing up there are two principal reasons why derivatives products are used:

- Managing risk
- Making profit

[13] Commission of the European Communities, *Ensuring efficient, safe and sound derivatives markets*. Commission Staff Working Paper, Brussels, 3.7.2009 SEC(2009) 905 final. Available at <http://ec.europa.eu/internal_market/financial-markets/docs/derivatives/report_en.pdf>.

[14] Without necessarily having actual exposure to the underlying.

Since the peculiar characteristic of an OTC derivative contract is its 'malleability',[15] these uses are materialized in OTC markets through an impressive range of derivative types, which are often referred to as 'exotic' for their highly complex and customized structures. However all derivatives can be reduced to the basic forms of forward and option, as swap dealers combine and integrate the two simple derivatives with features that alter their payoffs in many different ways. For instance, considering that a swap generally entails cash flow exchanges on numerous future dates, a forward contract can be viewed as a straightforward case of swap because it corresponds to the exchange of cash flows on merely one future date. On the other hand, examples of exotic derivatives are an 'asian option', i.e. an option in which the payoff depends on the average price of the underlying asset during at least a part of the life of the option, as well as a 'swaption' which, mixing swaps and options, generates an option to enter into a future swap.

Exactly in this manner the financial innovation manifests in the OTC derivatives market, leading to greater sophistication and depth of financial markets which, how Ben Bernanke said in 2007,[16] boost economic growth. In our context, this notion relates to the fact that the flexibility of OTC derivatives allows market participants to implement any conceivable risk management strategy and in doing so they arguably improve the allocation of capital. The European Commission even acknowledges that derivatives can benefit the economy, indeed in a recent communication it said: "No economy can flourish if no-one is willing to take risk" (EC, 2009). Therefore, from some perspectives the financial engineering in OTC markets can be good.

A first opinion (focused on completing markets)[17] highlights that real economic risks are countless and non-standardized, hence for hedging them, the versatility of off-exchange traded derivatives is essential because it enables customized risk management. Indeed many companies in all countries and in all industries use OTC derivatives to hedge effectively their business and financial risks, reducing consequently income statement volatility. Examples can be distributors of energy, who, by using derivatives, manage variations in energy prices and also decrease volatility for consumers or airlines, who maintain ticket prices stationary thanks to derivatives contracts hedging fuel costs. For firms in effect the flexibility of these financial instruments is crucial to manage efficiently their working capital and then shrink the total cost of doing business remaining competitive. Moreover, banks can increase their loan supply

[15] HUDSON, Alastair, S.d.. *Dealing with Derivatives*. Derivatives law course [online]. Available at <http://www.alastairhudson.com/financelaw/derivativeslawcourse.pdf> [Access time: December 2014].

[16] During his office as Fed Chairman (February 1, 2006 - February 3, 2014).

[17] Complete markets are those in which perfect risk transfer is possible.

using hedges for the interest rate risks and, on the other hand, bank clients can improve the credit capacity by relocating their risks through the use of certain derivatives.

From another point of view (centred on overcoming asymmetric information and agency problems), derivatives play an important role in price discovery since they provide the market's outlook on the future evolutions of market variables and thereby OTC products are able to improve the accuracy of some market prices. For instance, CDS spreads provide market's opinions on the credit risk of a company or a further borrower and may even impact on the ability of that reference entity to obtain financing.[18] Derivatives thus facilitate the pricing of risk that may otherwise be tricky to evaluate due to the not traded enough underlying assets.

What has been shown is that OTC derivatives contracts, allowing market participants both to share risks and to shape returns, can improve the financial markets. In brief, derivatives are very worthwhile products when used to economic and lofty purposes.

Unfortunately, the sharp rise in the use of derivatives since 2003 has been accompanied by less respectable objectives. And, further, some characteristics of these OTC instruments – as recently highlighted by the global financial crisis (2007-2008) – seem to be the main problem of the derivatives markets in terms of financial stability. It is worth pointing that the financial crisis did not begin because of OTC derivatives, although they have certainly contributed to the exacerbation of the crisis given their sheer size and prominence in the global financial system. To be more precise, the unregulated CDS market has performed a key role in the subprime securitization practice that ruined the economy and during the dramatic days the OTC market proved to be illiquid and dysfunctional. The reasons of this little resilience can be found in the features of the market reported below.

The bilateral nature of trading in the OTC market, i.e. only the two counterparties directly observe the quotes or the execution, narrows the information available to parties outside a private transaction. The major swap dealers benefits from this reduced transparency on traded prices, since they are able to quote different prices to their clients (as a result the information asymmetry decreases market efficiency). On the other hand, with this opacity market participants may be unable to know exactly the exposure of their counterparties and, supervisors might not identify early possible risks along with their level of concentration in some institutions. Furthermore, the opaque prices defined in OTC markets may affect other market segments when used to compute prices of other products, and in this case, as outlined

[18] That spill-over effect may be also negative when in the OTC market there are information asymmetries (this will be analyzed afterwards).

above, an example are the CDS spreads. In addition to the poor price transparency another source of opacity is the off-balance sheet accounting, that is not all the transactions in OTC derivatives are reported, hiding actual size of the markets and probably market abuses.

Besides, the bilateral commitments in the OTC market have created an intricate web of mutual dependence mostly between large financial institutions ('too big to fail')[19], which are become important participants with huge risk exposures to each other making this market of systemic significance. In effect the major financial institutions, taking part in almost all the segments of the market, have established a strong interconnection between these different market parts and the recent global financial crisis (GFC) has demonstrated how at critical times in OTC market a few large financial entities, through not effectively managed and opaque swaps, are capable of damaging the robustness of the financial system and ultimately put the wider economy at risk. That systemic risk[20] was well hidden prior to the GFC "thanks" to the ease with which everything could be obfuscated in OTC derivatives market. Precisely it was impossible to monitor the perils for financial stability due to the lack of the necessary public information to disclose the complicated web of counterparty relations and to assess potential financial dislocations, as before-mentioned. The contagion between markets is also caused by highly complex structures of many instruments (e.g. bonds in 'collateralized debt obligations-CDOs') and by an excessive quantity of leverage in OTC markets (under stress these markets, becoming illiquid,[21] can devastate other unconnected markets since greatly leveraged market participants are compelled to look for new places where to sell assets and so to provide for the diminished values of their collaterals).

Obviously, many of the market participants have profit incentives to design complex and opaque derivatives, in other words financial engineering is often supported to deceive the system: to bypass legal restrictions; to obscure risk-taking activities (e.g. leveraged exposures with low capital requirements); to make harder the right evaluation of the products and so on. In this case the innovative OTC derivatives do not add value to the economy but, pursuing non-economic aims, they make the financial markets crisis-prone.

Furthermore, it is important to specify that the development of OTC derivatives market has not been flanked by efficient enough post-trade processes (i.e. tools to manage and mitigate

[19] Expression returned topical in 2008 with the U.S. subprime mortgage crisis, when the U.S. government propped up some distressed systemically important institutions whose failure would have been disastrous to the global economic system.

[20] The risk that the inability of one participant to discharge its obligations in a system will cause other participants to be unable to fulfil their obligations when they become due. This could potentially result in significant liquidity or credit problems spilling over into other systems or markets, thereby threatening the stability of the financial system. See <http://www.ecb.europa.eu/pub/pdf/other/paymentsystem201009en.pdf>, p. 128.

[21] OTC markets, being organized around dealers who are not constrained to always act as market makers, are much more susceptible to illiquidity problems. Since these dealers can withdraw from the markets whenever continuing to make markets becomes especially dangerous and expensive (such as when there were oscillations in market volatility during the GFC).

risk), notably clearing (the function by which the risk of open positions is managed) that has occurred mostly bilaterally between the counterparties involved at least up to the GFC, when then, many deficiencies of bilateral clearing and accordingly of post-trading practices were pointed out.[22]

In the bilateral world, the two counterparties oftentimes have a collateral agreement ('Credit Support Annex-CSA')[23] which shapes the way their respective credit exposures to each other are managed. In this manner the parties value and monitor the derivatives contract in the course of its life, since the claim, built up by each party and giving the right to require collateral, fluctuates with the underlying asset for the entire duration. Even though in OTC market collateral is fundamental to mitigate credit risk, it demands to manage quite a lot clearing relationships (with all own counterparties), and as shown from the GFC many market participants had too much bilateral exposures with an insufficient level of collateral.[24] This non comprehensive coverage can be partly explained by the fact that incorrect credit ratings were often taken into account to assess the credit quality. On the other hand, the financial crisis has unearthed the lack of each party's satisfactory skills to effectively measure the current value of a contract and the corresponding collateral obligation. In addition, some entities have not made a daily valuation and a prompt exchange of collateral, but delays of weeks were the market norm. Therefore, disputes between counterparties in regard to differences in risk valuation methods, in frequency of valuations, etc., arose and entailed costly wastes of time.

The risks of OTC derivatives can be mitigated by also improving the efficiency at trading level, in which prior to the GFC, these derivatives contracts for their bilateral and unregulated nature were not often managed with automatic equipment, triggering negative externalities to market participants, such as an inaccurate view of risk positions, lengthy backlogs and potential detrimental mistakes (operational risk). Included in the operational risk is the legal risk, that is the uncertainty about the lawful enforceability of the claims resulting from a derivatives contract (i.e. about their compliance with laws, rules and regulations). The lower the level of standardization, the higher the legal risk, which in the OTC derivatives market was significantly reduced by the introduction of master agreements[25] (in particular ISDA

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[22] *See* European Commission, *supra* note 12. In particular, once a derivatives contract has been confirmed (this will be in detail shown in the II Chapter), it will be subject to post-trading practices, whose organization depends on whether the contract is cleared bilaterally or by a central counterparty. These post-trade procedures consist of: collateral management; handling of cash flows; portfolio reconciliation; netting; portfolio compression and termination of contracts.

[23] Set under an ISDA Master Agreement, topic that will be examined in depth in the II Chapter.

[24] DEUTSCHE BORSE AG, 2009. *The Global Derivatives Market – A Blueprint for Market Safety and Integrity*. White Paper, p. 13 [online]. Available at <http://deutsche-boerse.com/dbg/dispatch/en/binary/gdb_content_pool/imported_files/public_files/10_downloads/11_about_us/Public_Affairs/The_Global_Derivatives_Market_0909.pdf> [Access time: December 2014].

[25] Framework agreement that consolidates all the OTC derivatives transactions between the same counterparties.

Master Agreements), but following the financial crisis the large increase in disputes over the interpretation of some clauses has brought to light the presence of still legal uncertainty.

Describing benefits and risks of OTC derivatives has highlighted that these contracts are not intrinsically negative instruments, and most dangers for the stability of the financial system depend on the way in which they are used by market participants. Notably the related regulations (or better the almost total absence of an OTC market official regulation) in force before the 2008 financial crisis have not driven the markets to appropriate uses of the OTC products, undermining safety and integrity of the derivatives trading. In the wake of the GFC numerous changes of OTC derivatives regulatory reforms are begun in order to ensure a well-functioning market that gives its participants and the economy as a whole more benefits than costs.

1.3 HOW THE OTC DERIVATIVES MARKET IS CHANGING

Since the outbreak of the recent financial crisis both public bodies and the private sector started to engage in the improvement of the market infrastructure for OTC derivatives.

First and foremost, given the size and global nature of the OTC derivatives market, it was evident the need of a joint commitment from regulators and policy makers worldwide to address structural weaknesses in the OTC segment. Thus, global guidelines concerning OTC derivative reform were issued by the G20[26] during the Pittsburgh Summit, September 24-25, 2009. In particular, in the G20 Leaders Statement, the G20 members agreed to the following:

> All standardized OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties by end-2012 at the latest. OTC derivative contracts should be reported to trade repositories. Non-centrally cleared contracts should be subject to higher capital requirements. We ask the FSB [Financial Stability Board] and its relevant members to assess regularly implementation and whether it is sufficient to improve transparency in the derivatives markets, mitigate systemic risk, and protect against market abuse.[27]

[26] The G20 is an informal group of 19 countries (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, Korea, Turkey, United Kingdom, United States) and the European Union, with representatives of the International Monetary Fund and the World Bank. G20 Research Group, 1999. *What Is the G20?*. University of Toronto. Available at <http://www.g20.utoronto.ca/g20whatisit.html>.

[27] G20 Research Group, 2009. *G20 Leaders Statement: The Pittsburgh Summit*. University of Toronto. Available at <http://www.g20.utoronto.ca/2009/2009communique0925.html>.

Therefore, the actual regulatory authority, that is the responsibility to take sound legislative actions lies in governments and parliaments, whose work is monitored by the Financial Stability Board (FSB)[28] that indeed exhibits, in a series of interim reports, the G20 countries' progress in reaching the accorded objectives. In the most recent report, delivered on November 7, 2014, it notes that the adoption of legislation (a first stage of the reform process) is generally completed, but the whole implementation of the OTC derivatives market reforms is not yet achieved: although more than three-quarters of FSB member jurisdictions have higher capital requirements for non-centrally cleared derivatives as well as trade reporting requirements in force, measures in other reform areas are not for now effective in the majority of jurisdictions, notably actions to promote trading on exchanges or electronic trading platforms take more time.[29]

In order to ensure that reform implementation fulfils the G20 aims, harmonized regulatory regimes among the various jurisdictions are especially necessary owing to the highly cross-border nature of OTC derivatives markets. Authorities in this instance acknowledge the importance of an internationally coordinated regulatory reform effort. Precisely because issues of overlaps, gaps, inconsistencies or conflicts in the regulatory requirements may result in regulatory arbitrage, i.e. market participants may choose to trade in markets with weaker or more profitable regulations. Even more worrying is that these attempts to escape stricter rules could involve liquidity fragmentation in OTC derivatives markets and therefore lack of cross-border coordination may be a threat to the soundness of financial markets. For this reason, the FSB urges jurisdictions to enact any remaining legislation and regulation in a configuration flexible enough to comply with cross-border consistency, in line with the St. Petersburg G20 Leaders' Declaration (September 2013) that underlines: "[…] jurisdictions and regulators should be able to defer to each other when it is justified by the quality of their respective regulatory and enforcement regimes, based on similar outcomes, in a non-discriminatory way, paying due respect to home country regulation regimes."[30]

Reforming the complex and fast moving OTC market is clearly hard. In addition, the G20 commitments actually demand that market participants revise entirely how they trade and use OTC derivatives. Accordingly, there is uncertainty with respect to how this market will work and appear in the next few years, even though it is certain that the ultimate objective of global regulatory reforms is to strengthen the infrastructure of derivatives markets. Hence it is worth

[28] The FSB is composed of the same countries as the G20, but also includes the Netherlands, Spain, Switzerland, several International organizations and International standard-setting bodies. *See* <http://www.financialstabilityboard.org/about/fsb-members/>.

[29] Financial Stability Board, 2014. *OTC Derivatives Market Reforms*. Eighth Progress Report on Implementation, November 7 [online]. Available at <http://www.financialstabilityboard.org/wp-content/uploads/r_141107.pdf>.

[30] G20 Research Group, 2013. *G20 Leaders' Declaration: St. Petersburg Summit*. University of Toronto. Available at <http://www.g20.utoronto.ca/2013/2013-0906-declaration.html>, paragraph 71.

examining closely their regulatory regimes, ensuing from the international guidelines set by the G20, in the two largest financial markets in the world, i.e. the EU and the US markets, and focusing on much-discussed new rules concerning the trading of OTC derivatives products on regulated entities.

1.3.1 US swaps market and the SEF trading regime

On July 21, 2010, President Obama signed the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act)[31] whose primary aim is to restructure the financial regulatory system to re-establish public confidence in the wake of the financial crisis and to prevent another crisis from occurring. A pivotal component of the federal legislators' work is the Title VII[32] that amends the Commodity Exchange Act (CEA) and the Securities Exchange Act to institute a comprehensive new regulatory framework for swaps and security-based swaps, which are overseen by the Commodity Futures Trading Commission (CFTC) and the Securities and Exchange Commission, respectively. The Title VII of the Dodd-Frank Act aspires to enhance the safety and the soundness of the OTC derivatives markets through three main requirements conformed to the G20 commitment:

- clearing swaps through central counterparties;
- executing swaps on regulated trading platforms;
- reporting swaps data to trade repositories.

For the purposes of this dissertation we examine more closely the final rules agreed by the CFTC on May 16, 2013 to implement certain Title VII provisions concerning execution of most cleared swaps on designated contract markets (DCMs)[33] or registered swap execution facilities (SEFs).[34] In particular the latter are introduced by the Dodd-Frank Act whose intent is to provide a facility through which OTC derivatives can be traded electronically and multilaterally. The multilateral nature of these new platforms is important since increased transparency is a key goal of the Act to create a more efficient market. Therefore, the law defines a SEF as a "trading system or platform where multiple participants have the ability to execute or trade swaps by accepting bids and offers made by multiple participants in the facility or system, through any means of interstate commerce, including any trading facility, that – (A) facilitates the execution of swaps between persons; and (B) is not a designated

[31] Dodd-Frank Wall Street Reform and Consumer Protection Act, Public Law 111-203, 124 Stat. 1376 (2010).
[32] Pursuant to section 701 of the Dodd-frank Act, Title VII may be cited as the "Wall Street Transparency and Accountability Act of 2010".
[33] In the U.S., futures exchanges facilitating the execution of futures products mostly through anonymous central limit order books are called designated contract markets.
[34] The Commission issued proposed regulations, guidance and acceptable practices applicable to SEFs under Part 37 of Title 17 of the Code of Federal Regulations which were implemented ninety days after publication of the final regulations.

contract market."[35] Additionally, Congress has established a trade execution requirement, which states that swaps subject to the clearing requirement must be executed on a DCM or SEF, unless no DCM or SEF makes the swap available to trade (i.e. the facility does not supply the swap for trading) or for swaps subject to the clearing exception under CEA section 2(h)(7).

The Commission's implementation of these Dodd-Frank sections about swaps trading was modelled on the regulatory template of the US futures market, mainly when it approved the 'made-available-to-trade' (MAT) rule, which requires a SEF to submit a MAT determination for swaps products to the CFTC pursuant to part 40 of the Commission's regulations after examining six factors relative to demand and trading frequency of such swaps. Once the CFTC permits the SEF's determination, these products become 'Required Transactions', that is, swaps subject to the trade execution requirement (which prevents them from being traded bilaterally), and hence counterparties must execute them on a SEF. As a result this platform-controlled MAT process, besides giving the market clarity about which OTC derivatives must be, by law, traded on SEFs,[36] divides the swaps that may be executed on a SEF into two categories: 'Required Transactions' and 'Permitted Transactions', especially this last class comprises any swap that is listed on a SEF but it is not subject to the trade execution requirement, as an example a swap is not required to clear.

Accordingly, the SEF regime appears to ban single dealer platforms for trading standardized swaps because while multiple parties have the ability to execute through such platforms, they would not have the possibility to accept bids and offers made by multiple participants (they could only deal with dealers). Furthermore, CFTC rules call for execution methods for each category, notably 'Required Transactions' have to be executed in a centralized order book or a RFQ system where a request for quote is transmitted to three participants operating in connection with an order book. On the contrary, 'Permitted Transactions' can be executed through any trading method provided by the SEF. However, market participants can interact with "any SEF functionality via voice, paper or electronic means, provided that audit trial requirements are met."[37]

Another relevant section of Dodd-Frank Act, amending the CEA so that applicable to SEFs, is section 733 concerning registration, operation, and compliance with fifteen core principles for SEFs. In this regard the final CFTC rules establish which entities must register as SEFs with

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[35] CEA section 1a(50), as amended by Dodd-Frank Act section 721; 7 U.S.C. 1a(50).

[36] It is important to specify that if a MAT determination goes into effect, all swaps covered by that MAT determination must be exchange traded and any market participant will be in violation of the trade execution mandate if such swaps are then traded bilaterally.

[37] PWC US, 2013. *Derivatives: SEFs – Opening bell sounds*. FS Regulatory Brief, June [online]. Available at <http://www.pwc.com/en_US/us/financial-services/regulatory-services/publications/assets/fs-reg-brief-derivatives-sefs-opening-bell-sounds.pdf> [Access time: February 2015].

the Commission and conform to strict requirements, for instance meeting specific financial resource requirements and offering equal access to all market participants given that increased transparency and liquidity in swaps markets (goals of the SEF regime) level the playing field. Among these Dodd-Frank-inspired rules a footnote, the number 88, attracts attention because it states that "a facility would be required to register as a SEF if it operates in a manner that meets the SEF definition even though it only executes or trades swaps that are not subject to the trade execution mandate." According to the International Swaps and Derivatives Association (ISDA), that statement essentially requires all multiple-to-multiple trading platforms to register as SEFs, even if the products they offer are not subject to a trade execution mandate and regardless of whether the platform is electronic or voice. Therefore, the SEF regime would apply to any transaction the SEF offered, whether or not that transaction is mandated to trade on a SEF.

In addition, the CFTC addresses swap trading relationship documentation for uncleared derivatives requiring a SEF to provide "each counterparty to a transaction … with a written record of all of the terms of the transaction which shall legally supersede any previous agreement and serve as a confirmation of the transaction."[38] Moreover, in the footnote 195 of the final SEF rules the Commission affirms that "[t]here is no reason why a SEF's written confirmation terms cannot incorporate by reference the privately negotiated terms of a freestanding master agreement for [highly bespoke transactions not subject to the clearing mandate and not voluntarily cleared] …, provided that the master agreement is submitted to the SEF ahead of execution …."[39] The stated aim of these SEF confirmation requirements is to give market participants, who executed swaps on a SEF, the legal certainty they need with respect to such transactions.

On the contrary, in the opinion of the CFTC Commissioner J. Christopher Giancarlo (as he wrote in its White Paper of January 29, 2015), in these rules there is a lack of clarity increasing legal uncertainty, and above all requiring a SEF to confirm and report terms of a trading relationship to which it is not a party, notably terms from master agreements that do not affect the principal economic terms of the transaction, is an almost impossible responsibility encumbering the trading of uncleared swaps on SEFs. Overall, the Commissioner is critical of the CFTC's swaps trading regulatory framework since in his view it is disproportionately modelled on the US futures market to does not accord with the distinct

[38] 17 CFR 37.6(b).

[39] Federal Register, Vol. 78, No. 107, June 4, 2013. *Core Principles and Other Requirements for Swap Execution Facilities*. Final Rule by the Commodity Futures Trading Commission, 17 CFR Part 37 [online], p. 33,491 n. 195. Available at <http://www.gpo.gov/fdsys/pkg/FR-2013-06-04/pdf/2013-12242.pdf>.

liquidity and trading dynamics of the global swaps market as well as the letter or spirit of the Dodd-Frank Act.[40]

However, shortly after the deadline set by the G20 (end-2012) most of the common OTC derivatives (e.g., IRSs and CDSs) began being subject to mandatory swaps clearing under Title VII, in particular at the start of 2013 there was a first clearing determination requiring certain standardized classes of swaps[41] to be cleared by registered derivatives clearing organizations, i.e. clearinghouses that provide clearing services with respect to derivatives. Subsequently on October 2, 2013 the SEF rules became effective: the registered firms, which applied to the CFTC to establish a SEF, began operating as SEFs subject to the final regulations; on the other hand, only from February 15, 2014, when the first MAT determination came into force, all US persons have been legally required to trade MAT products[42] on SEFs or DCMs, and hence, such derivatives are no longer permitted to be traded bilaterally.

This attempt to shift the swaps market from a bilateral one to a public exchange-style market is designed primarily in the hope that enhanced transparency through electronic execution, business conduct rules and swap data reporting will promote competition, and as a result pricing improvements. Many regulators argue that price transparency in derivatives market, apart from improving information asymmetries, prompts lower bid/offer spreads and cuts trading costs.

Nevertheless, various observers criticize the very prescriptive rules of the CFTC, especially about the execution methodologies set for SEFs and the MAT process, which seem to ignore key differences between OTC derivatives and exchange-traded instruments. The former have liquidity levels highly variable and, on any given day, in swaps markets some large institutional counterparties execute a modest number of wide in size transactions (typical of 'quote-driven' markets). While a limited variety of highly fungible listed products are traded much more frequently and in relatively small amounts by a broad range of market participants, entailing a liquidity generally continuous in character (typical of 'order-driven' markets). Then several critics are concerned about unpredictable effects that, in their opinion, this nonviable regime could have on swaps markets, where instruments ordinarily trade via voice brokers to begin, and later only when liquidity raises and contracts become more

[40] GIANCARLO, J. Christopher, 2015. *Pro-Reform Reconsideration of the CFTC Swaps Trading Rules: Return to Dodd-Frank*. White Paper, January 29 [online], executive summary and p. 36. Available at <http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/sefwhitepaper012915.pdf>.

[41] Four IRS classes (Fixed-to-Floating IRS; Basis Swap; Overnight Index Swap; Forward Rate Agreement) and two CDS classes (European Untranched CDS Indices; and North American Untranched CDS Indices).

[42] MAT submissions are available on the CFTC website: www.cftc.gov.

‘commoditized’ (i.e., widely accessible) it is possible to utilize an electronic platform for trading them.

Furthermore, prior to the SEF rules being implemented, many market participants feared that these regulations along with the uncertainty about interpretation of cross-border application of Dodd-Frank Act could hit swaps trading across the board, reducing and fragmenting market liquidity. That is exactly what has occurred once the SEF regime came into effect in the US (October 2, 2013). According to *Cross-Border Fragmentation of Global OTC Derivatives: An Empirical Study* carried out by the ISDA in January 2014 and updated in July 2014, following different types of USD, EUR and GBP interest rate swaps were ratified by the Commission for MAT trading, the market for euro IRSs has emerged to be definitely divided between US and non-US counterparties, creating smaller pools of regional liquidity. The resulting market fragmentation could lead to lower transparency, less efficient pricing, and greater volatility – something the Dodd-Frank Act expected to avoid. Anyway, the separate liquidity pools are the result of changes in trading habit among dealers since the start of CFTC swaps regulation: European dealers have radically refused to trade with US counterparties, notably the ISDA has found that EUR MAT swap volume severely decreased while USD MAT swap volume grew as a percentage of total SEF trading volume, that is, SEFs are becoming more US-centric and some capital is flowing away from the US economy.

Further market response to the CFTC burdensome regulations is the much-discussed ‘futurization of swaps’, which concerns the use of a series of futures contracts to reproduce the risk allocation functions that OTC derivatives perform in the market, in other words swaps traders have started to evaluate exchange traded futures as an alternative to some swap transactions in order to escape regulatory requirements only applicable to swaps (e.g., registration). However, more customized and complex derivatives may not be so easily substituted, or futures contracts may not precisely cover complicated exposures, to make market participants prefer swaps over exchange traded products regardless of the heavy requirements.

In any case, the SEFs, regulated exchange-like platforms officially launched about a year ago, are now more than twenty registered with the CFTC and are making steady progress in establishing themselves as viable trading venues. Additionally, in order to facilitate the products innovation and to avoid the formation of monopolies, it is possible to trade on one SEF and then clear at the central counterparty of own choice (a horizontal model as opposed to the vertical model in the futures space). On the other hand, the electronic trading would open global markets to more participants and new opportunities, and besides, its own

efficiencies are already acknowledged, such as a swap trade carried out through a SEF takes the click of a mouse instead of the ten minutes or more through an OTC transaction over the telephone. Despite this, it has to be specified that "the majority of investors continue to prefer trading via name give up request for quote (RFQ), which is the most similar to the old way of phone trading as is possible under the CFTC's rules," according to a Greenwich Associates research reported by Markets Media (October, 2014).

Today the new market structure is beginning to take shape, although the SEFs have had a slow start characterized by low trading volumes, and among the probable causes there were: the large number of SEFs which could have dispersed liquidity and added complexity;[43] the scant volatility in the markets until September 2014, and the very low interest rates for the entire year, which have downsized the swaps trading. Moreover, the buy-side clients, not having the resources to connect to all the new registered entities, usually wait to see in which SEFs is gathered more liquidity and then they choose to link directly to a SEF.[44]

In conclusion, the Dodd-Frank objective to move a significant share of OTC swap transactions to regulated facilities (i.e., SEFs, DCMs or registered exchanges), with clearing required through central clearinghouses, affects all swap market participants. Therefore, the buy side especially needs to weigh the benefits of greater transparency, potential for technological improvements, competitive pricing of a derivative on a regulated platform against the costs of getting a bespoke swap with terms that correspond more closely to the risk being managed (e.g., there may be, because of the regulatory change, the dealer's increased costs incorporated in the swap bid-ask spread).

1.3.2 EU derivatives trading obligation and SI regime

Immediately after the G20 Pittsburgh Summit in 2009, the European Commission started to work on different measures in order to meet its G20 commitments, particularly in relation to derivatives. First, the European Parliament and the Council adopted the Regulation No 648/2012 of 4 July 2012 on OTC derivatives, central counterparties and trade repositories, commonly referred to as the European Market Infrastructure Regulation (EMIR), which entered into force on 16 August 2012, and being a regulation, since that moment its provisions have become legally binding in all Member States so as to ensure a uniform set of rules in the European Union (EU) and absence of regulatory arbitrage between European

[43] MARKETS MEDIA, 2014. *OTC Swap 'Futurization' Parsed.* News, October 2 [online]. Available at <http://marketsmedia.com/otc-swaps-futurization-parsed/> [Access time: February 2015].

[44] MARKETS MEDIA, 2014. *Futures and Swaps Seek Happy Medium.* News, September 18 [online]. Available at <http://marketsmedia.com/futures-swaps-seek-happy-medium/> [Access time: February 2015].

countries. EMIR, with the ultimate aim of reducing systemic risk in the OTC derivatives market, imposes on market participants three main obligations:[45]

- clearing eligible classes of OTC derivatives through central counterparties;
- reporting any derivatives contract to a registered trade repository;
- putting in place risk mitigation techniques for uncleared OTC derivatives.

In addition, this regulation enforces "uniform requirements for the performance of activities of central counterparties and trade repositories."[46]

However, the EU legislators adhered to the 2009 G20 mandate also through the long revision of the Markets in Financial Instruments Directive (MiFID of 21 April 2004, implemented in November 2007),[47] which has generated a new Directive (MiFID II) and a Regulation (MiFIR), both published in the Official Journal of the EU on 12 June 2014.[48] Such review of MiFID, that is the MiFID II-MiFIR framework, establishes a new market structure which guarantees that trading, wherever suitable, occurs on regulated platforms. Indeed, the introduction of a new type of multilateral trading venue, the organized trading facility (OTF), for non-equity instruments (e.g. derivatives, bonds, structured finance products) and the MiFIR trading obligation for certain derivatives and equities will decrease significantly the OTC trading.

Before examining this new trading space for OTC derivatives more closely, it is worth dedicating some lines to MiFID: the Directive that was a cornerstone of the EU's regulation of financial markets and is in part at the base of the new more robust regulatory regime. Moreover, the European pre-crisis financial regulation has a less developed history compared to the US[49] and this directive is exactly its most important component, whose aim was to make EU financial markets more integrated, competitive and efficient. It has created a single market for the provision of investment services, secured greater protection for investors in financial instruments and changed the marketplace for equities remarkably. Among other things, MiFID, allowing the operation of a multilateral trading facility (MTF) as an investment service, has introduced competition across Europe between regulated markets (RMs, i.e. traditional stock exchanges) and alternative venues (MTFs) for trading financial instruments. In particular, a MTF means a multilateral system, operated by an investment firm

[45] These obligations take effect once the necessary regulatory and/or implementing technical standards (RTS/ITS) apply. RTS and ITS are submitted by the European Securities and Markets Authority (ESMA) and the European Banking Authority (EBA).
[46] OJ L201, 27/7/2012, p.14.
[47] The MiFID regulatory framework consists of: the level 1 Directive 2004/39/EC, the level 2 Directive 2006/73/EC and the Regulation 1287/2006. Its review was planned from the beginning, but after the 2008 financial crisis it was extended beyond what was initially considered.
[48] MiFID II is the Directive 2014/65/EU repealing Directive 2004/39/EC and MiFIR is the Regulation No 600/2014 amending EMIR.
[49] Partially due to the fact that most regulations were based on national authorities, such as the Financial Services Authority (FSA) in the UK.

or a market operator, which "brings together multiple third-party buying and selling interests in financial instruments [in the system and in accordance with non-discretionary rules] in a way that results in a contract."[50]

While the new category of trading venues brought some positive aspects, as an example the reduced bid-ask spreads in equity markets, it also led to fragmentation in equity trading which complicated the collection of trade data. The RMs spotted a certain regulatory imbalance in respect to MTFs, notably the latter acted on the basis of lower operating and regulatory compliance costs, and hence they had a competitive advantage. Furthermore, there was a growth of new trading platforms and activities (e.g. so-called dark trading) which did not fall into the scope of MiFID, that is they were not regulated, and therefore a revision of the directive has been indispensable in this more complex reality, where new methods of trading and continually innovative financial products appear.

To sum up the EU post-crisis financial reforms, in particular concerning derivatives (purpose of the discussion), consist of two pillars: one is the EMIR Regulation which forms the market infrastructure to support the other one, namely the MiFID review (MiFID II-MiFIR) which brings in significant changes to the existing legislative framework and additional measures in order to increase transparency and create a more level playing field. In other words, EMIR and the review of MiFID complement one another, and besides, the combination of a directive and two regulations permits national differences in some sections and a harmonized approach in the others. Especially the new EU legislation distinguishes between trading activity executed on organized trading venues (i.e. RMs, MTFs or OTFs) and trading activity performed outside a trading venue (i.e. on systematic internalisers, SIs, or purely over-the-counter, OTC). This change to the market structure is accomplished through a new type of multilateral trading venue (OTF); an extension of the already existing SI category; and trading requirements for well-defined derivatives and equities.

Under MiFID several operators of trading systems, who mostly exercised some discretion during execution of orders, were excluded from the MTF definition and, consequently, being outside of the regulatory framework they threatened both the transparency and the price formation process. In light of this, the OTF concept is introduced to regulate a broader set of different trading systems which exist today and might emerge in the future. In fact an organized trading facility is a third type of multilateral system (beyond RMs and MTFs) in which multiple third-party buying and selling interests can interact in a way that results in a

[50] European Commission, S.d.. *Glossary of useful terms linked to markets in financial instruments* [online]. Available at <http://ec.europa.eu/finance/securities/docs/glossary_en.pdf> [Access time: February 2015]. MiFID has introduced the concept of MTFs to replace the US multilateral ATSs (i.e. alternative trading systems), which had been established prior to MiFID but were not subject to specific European legislation.

contract. Operating an OTF is classified as an investment service and as a result only persons licensed as an investment firm are entitled to manage OTFs.[51] However, unlike the other two kinds of trading systems, the new category is limited in scope to *non-equity* instruments (i.e. derivatives, bonds, structured finance products or emissions allowances) and its further distinguishing feature is that OTF operators perform order execution on a *discretionary* basis, and in consequence they have to fulfill the investor protection duties, such as acting in the interests of their clients and in compliance with the best execution obligations. Going into detail, an investment firm that runs an OTF must exercise discretion in either or both of the following circumstances: when deciding to place or retract an order on the OTF; or when deciding not to match a specific client order with other orders available in the system (or, for a system that crosses client orders, also discretion to decide how much of an order to match with other orders).

Since the preference of European legislators is to maintain the OTF operator in a neutral role, the MiFID II-MiFIR prohibits an investment firm operating an OTF from trading in the OTF against its proprietary capital or that one of any entity that is part of the same corporate group or legal person. As an exception to the just described prohibition, investment firms running an OTF are allowed to engage in dealing on own account other than matched principal trading[52] only with regard to sovereign debt instruments for which there is not a liquid market. Particularly the new legislation prohibits matched principal trading by the OTF operator with the exception of matched principal trading in non-equity instruments that are not subject to the clearing obligation under EMIR and only in cases where there is client consent.

As an additional restriction on OTFs, MiFID II bans an OTF from connecting with another OTF in a way that enables orders in different OTFs to interact. This will probably narrow the extent to which orders can be routed between OTFs. But then considering these various limitations from a practical point of view leads to the conclusion that it is questionable how tempting this type of trading venue will be for investment firms.

Nevertheless, the OTF category is broad and encompasses broker crossing networks along with all types of organized trading in non-equity instruments that so far took place outside the regulated venues. Therefore any multilateral system must now operate as one of three kinds of trading venues (RMs, MTFs and OTFs), which have to set out transparent and non discriminatory rules governing access to the facility and meet similar organizational requirements. Above all the MiFID II-MiFIR, always in order to guarantee a level playing

[51] GLOWACKI, Michal, 2014. *Organised trading facility (OTF).* MiFID2-MiFIR, December 14 [online]. Available at <http://www.emissions-euets.com/trading-venues/organised-trading-facility-otf> [Access time: February 2015].

[52] As its definition (Article 4(1)(38) of MiFID II) allows to state matched principal trading is in first place a form of dealing on own account.

field of regulation for functionally analogous activities, has extended for the first time the transparency regime (for equities in MiFID) to non-equity instruments, with the exemption for derivative transactions of EMIR non-financial counterparties that are entered into for hedging purposes. All this with the purpose of setting fair competition between trading venues where a larger quantity of derivatives will move.

Regarding pre-trade transparency requirements for trades in non-equities, the operators of RMs, MTFs and OTFs must publish current bid and offer prices and depth of trading interest at those prices on a continuous basis during normal trading hours, as well as actionable expressions of interest. However, since the nature of a given trading model depends on the characteristics of transacted financial instruments, and since a relationship exists between trading models and pre-trade transparency rules, the pre-trade transparency should be calibrated for different trading models. For this reason, pre-trade transparency waivers about non-equity instruments are permitted for: large in scale orders or orders held in an order management system of the trading venue; actionable indications of interest in request-for-quote and voice trading systems above a certain size; and illiquid financial instruments (the European Securities and Markets Authority - ESMA - is authorized to develop the various details). On the other side, the post-trade transparency regime to non-equity instruments commands operators of multilateral systems to report price, volume and time of transactions as close to real-time as is technically possible.[53]

Moreover, the establishment of the OTF model is linked to the G20 commitment (which was not included in EMIR) to move trading in standardized OTC derivative contracts to exchanges or electronic platforms, reflected in the MiFIR obligation for derivatives (Article 28) that will largely shift trading in these instruments to multilateral and well regulated platforms for obtaining higher levels of transparency, integrity and efficiency. In effect MiFIR demands that *clearing eligible* and *sufficiently liquid* derivatives contracts be traded on an organized trading venue, i.e. a RM, MTF, OTF or third-country trading venue deemed equivalent by European Commission. This obligation is the area where the important dependencies between MiFIR and EMIR are most noticeable, given that it applies to non-intra group transactions in a particular subset of derivatives instruments subject to the EMIR clearing obligation when traded by counterparties that meet the requirements specified by EMIR to be covered by the mandatory clearing. Accordingly, the MiFIR trading obligation applies to trades between financial counterparties and non-financial counterparties above the clearing threshold (defined

[53] DELOITTE, 2014. *MiFID II and the new trading landscape* [online]. Available at <http://www2.deloitte.com/content/dam/Deloitte/es/Documents/servicios-financieros/Deloitte-ES-mifid-II-Servicios-Financieros.pdf> [Access time: February 2015].

in EMIR), and hence it takes account of every systemically prominent entity departing from the traditional domain of financial legislation, which includes exclusively financial entities.

Regulatory technical standards are formulated by ESMA to determine which classes of derivatives will be subject to the trading obligation, although the starting point is the clearing test selecting those derivatives that are required to clear under EMIR, and thus only contracts within the scope of EMIR are considered, namely, derivatives traded OTC and not already traded uniquely on trading venues. Following this first skimming there is the venue test whereby the derivatives traded on at least one trading venue go to the last step in which the ESMA defines (through the technical standards)[54] those sufficiently liquid to trade only on OTFs, MTFs or RMs and finally it publishes the categories of derivatives declared subject to the MiFIR trading obligation in an online register.

By means of this EU trading obligation for derivatives the more standardized and liquid segment of what at present it is named OTC derivatives market will shortly be moved to an organized trading venue, and therefore no longer traded on a purely OTC basis. Exclusively the derivatives contracts that are neither clearing eligible nor sufficiently liquid will continue to trade OTC. Anyway, this mandatory shift into regulated venues, or better this heavy convergence with the equities model, furthers multilateral trading systems above bilateral ones especially for standardized OTC derivatives.

The establishment of rules for bilateral trading systems was for the first time allowed in 2004 by MiFID which introduced the systematic internaliser (SI) role, but solely for shares admitted to trading on a RM. SIs are institutions large enough to match client orders internally, or against their own proprietary capital, such as single-dealer platforms that may not route orders between a number of institutions (unlike broker crossing networks). Consistent with the launch of OTFs, MiFID II expands the SI regime, and as a result the pre-trade transparency requirements, to cover equity-like instruments (e.g. depositary receipts, exchange-traded funds, certificates) and, more importantly, non-equity instruments which are currently traded for the most part on a dealer market, composed of investment firms transacting as principal on a bilateral basis and not under any pre-trade transparency obligation.[55]

Firstly MiFIR has updated the definition of systematic internaliser and added quantitative criteria to make it more objective. In conformity with the new legislation SIs are investment

[54] For instance the average frequency and size of trades over variable market conditions as well as the number and type of active market participants.

[55] FRESHFIELDS BRUCKHAUS DERINGER, 2014. *MiFID 2: markets*. Briefing, March 25 [online]. Available at <http://www.freshfields.com/en/knowledge/MIFID_2/?LangId=2057> [Access time: February 2015].

firms which, on an organized, frequent, systematic and substantial basis, deal on own account by executing client orders outside a RM, MTF or OTF without operating a multilateral system. Hence, the focus is on the key characteristic that a SI cannot bring together multiple third party buying and selling interests in functionally the same way as trading venues, and accordingly the SI is not a trading venue. This means that transactions executed on a bilateral basis are considered transactions executed outside a trading venue, and then SIs perform OTC trading (i.e. a trading that does not take place on an organized trading venue). In that case the biggest changes will be in derivatives markets outside the trading venues, specifically for derivatives contracts within the scope of the SI regime.

Particularly an investment firm is a SI and applies the SI regime only in relation to each single financial instrument, with respect to which it has to meet both quantitative criteria: one for ascertaining whether the firm deals on own account on a frequent and systematic basis; and another for ascertaining whether it does so on a substantial basis. To be more precise the frequent and systematic basis will be measured by the number of OTC trades in the financial instrument carried out by the investment firm on own account by executing client orders; and the substantial basis will be measured either by the size of the firm's OTC trading in relation to the total trading of the firm in a specific financial instrument or by the size of the firm's OTC trading in relation to the total trading in the EU in a specific financial instrument.[56] In addition MiFID II allows investment firms to opt into the SI regime even if they do not cross the quantitative thresholds, provided they comply with all relevant rules.

SIs are also required to conform to pre-trade transparency requirements in respect to non-equity instruments, notably the SIs have to make public firm quotes in respect to derivatives traded on a trading venue for which there is a liquid market only when they are prompted for a quote by a client and they consent to provide the quote. On the other hand, in relation to derivatives for which there is not a liquid market, SIs need disclose a quote to a client on request only whether they consent to provide the quote. Moreover, post-trade transparency obligations force investment firms to publish the volume and the price of transactions in derivatives instruments and the time at which they were concluded. This broader pre- and post-trade transparency regime for SIs is a very significant change, because as previously mentioned, the OTC transactions have never been subject to transparency requirements.

It needs to be noted that SI is not an approved option for execution of the trading obligation for derivatives, but on the contrary SI is a possible marketplace for fulfilling the trading

[56] GLOWACKI, Michal, 2015. *Systematic internaliser (SI).* MiFID2-MiFIR, January 27 [online]. Available at <http://www.emissions-euets.com/systematic-internaliser> [Access time: February 2015].

obligation for shares. In effect MiFIR demands that shares admitted to, or traded on, trading venues be traded on RMs, MTFs, SIs or third-country trading venues considered equivalent by European Commission. Therefore that trading obligation is a strong attempt to reduce the OTC trade for shares, unless it takes place on SIs where the efficiency of the price formation process is ensured through their transparency regime. On the other side, MiFIR with the trading obligation for derivatives seems to ban single-dealer platforms for the trade of standardized derivatives contracts. This last aspect is taken into account by investment firms when they will determine whether they are acting as SIs in derivatives instruments.

About the interconnections between SIs and OTFs the MiFID II prohibits the operation of an OTF and a SI from occurring within the same legal entity. This is likely to be an obstacle to large investment firms whose trading services comprise a broad range of execution methods for the various financial instruments, and generally through the same entity. Furthermore, the legislation forbids an OTF from connecting with a SI in a way that enables orders in the OTF and quotes or orders in the SI to interact.

The outcome of the wider SI regime under MiFID II is that more investment firms will be treated as SIs, and for a large variety of financial instruments, hence the EU legislators can finally control a further portion of trading outside regulated venues.

Unlike the US, where most of the rules for Dodd-Frank Act have already been implemented, the EU is still in the early stages of its rulemaking for EMIR and MiFID II-MiFIR. The new European legislation was politically consented in the second quarter 2014, but the main rules will not apply until January 3, 2017. In particular, the ESMA is in the process of consulting on draft detailed rules under the MiFID II-MiFIR framework, and thus, in this non-definite regulatory landscape firms must continue to make essential changes to their compliance programs. Then at a later time, it remains to be seen whether these measures, designed to push more trading onto regulated trading venues (RMs, MTFs, OTFs) and SIs, will represent greater opportunity for flow, or hit the executable liquidity in derivatives markets.

Ultimately, the analyzed EU financial reforms will stimulate important changes in trading process over the next several years, and most importantly they will rebalance the divide in financial markets between formally regulated derivatives and purely OTC contracts.

1.3.3 End of the bilateral OTC world?

To better understand the forthcoming landscape for derivatives following regulatory shake-up of OTC markets, it’s useful to specify the various shapes taken by OTC trading before the 2008 global financial crisis, notably how OTC derivatives were predominantly traded.

Although technology has modified trading infrastructure of capital market since over forty years, its recent advances in electronic facilities have revolutionized the trading process in many OTC markets. Moreover, prior to the global regulatory changes in OTC market place, the increasing use of electronic trading platforms has clouded the classic structural distinctions between regulated and OTC markets. Effectively the OTC trading can take three forms and one of them is very similar to the organization of exchanges, where the multilateral trading environment is created by electronic trading platforms and the firms offering these facilities can only act as brokers.

To be more precise the different lines, along which the OTC markets are organized, are called: 'traditional dealer market'; 'electronic brokering market'; and 'proprietary trading platform market'.[57] The first one is better known as 'bilateral trading' and represents the traditional structure of OTC markets, that is dealers act as market makers by keeping bid and offer quotes. Dealers transmit these quotes and negotiate execution prices over the telephone, and at times with the support of electronic bulletin boards. Such bilateral negotiation process permits only the two counterparties to observe prices. On the contrary, electronic brokering market utilises electronic trading platforms (essentially the same as those used by exchanges), which allow market participants to post quotes on a screen that is visible to all other participants (multilateral environment). Unlike an exchange, many electronic brokering platforms do not automatically match bids and offers so as to execute trades, but typically they have inter-dealer brokers that assist counterparties in negotiating a final trade. Additionally, this type of OTC market usually serves a restricted range of market participants (including dealers); it is well-functioning for actively traded instruments with an appropriate level of standardization; and it leaves clearing of trades to the counterparties. The third OTC market shape is a combination of the previous two in which a dealer starts up its own electronic trading platform. Specifically, the dealer alone can post bids and offers, hence all other market participants observe only his quotes ("one-way" multilateral environment). By means of this trading arrangement, half of the credit risk in the market is always held by the dealer that is the counterparty of each transaction.

However, the International Organization of Securities Commissions (IOSCO) has estimated that OTC derivatives before financial reforms (precisely in June 2010) were for the most part traded bilaterally, with voice execution (which comprises phone, email and other bilateral

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[57] DODD, Randall, 2002. *The Structure of OTC Derivatives Markets*. Derivative Study Center, Primers [online]. Available at <http://www.financialpolicy.org/dscotcstructure.pdf> [Access time: March 2015].
Id., 2008. Over-the-Counter Markets: What Are They?. *Finance & Development* [online], 45 (2). Available at <http://www.imf.org/external/pubs/ft/fandd/2008/06/basics.htm> [Access time: March 2015].
Id., 2010. *Derivatives*. Initiative for Policy Dialogue, Journalism Backgrounders, June 28 [online]. Available at <http://policydialogue.org/publications/backgrounders/derivatives/> [Access time: March 2015].

forms of messaging) towering above electronic platform trading. These estimates, carried out through supervisory data provided to some members of the Task Force on OTC Derivatives Regulation,[58] reflect the historical, traditional description of the OTC world, where contracts can be customized to the individual users' specific needs just thanks to the *bilateral execution*: binding agreements traded directly between two counterparties without the interposing of an exchange or other intermediary. In effect the bespoke derivatives products non-traded regularly are unsuitable for being traded on electronic platforms. Therefore, the 'customization' is the distinctive feature of the OTC derivatives market, whose main organization of trade (i.e. bilateral trading) makes that market less formal, especially if compared to an exchange. Nevertheless such off-exchange trading, in which the structure of privately negotiated contracts is often tailor-made, consists in well organized networks of trading relationships centred on one or more dealers.

The OTC market, in addition to the key advantage of creating new products to solve exactly the risk-management problems of its participants, had at least until the 2008 financial crisis an important cost advantage over exchanges: the almost total lack of regulatory and supervisory regimes by public bodies. Consequently, the bilateral OTC world was usually defined a marketplace not subject to the rules of an exchange, in other words an unregulated land where the finance industry has had the full power. Furthermore, it is not by chance that in Europe exchanges are referred to as 'regulated markets' and the OTC derivatives as derivatives contracts the execution of which do not take place on regulated markets.[59]

In brief, the customised nature of contracts together with the widespread absence of formal regulations have clearly differentiated the OTC derivatives market from the exchange-traded derivatives market, but this distinction holds good only up to the G20 Pittsburgh Summit in 2009, when (as detailed above) the strengthening of market infrastructure for OTC derivatives was launched, and as a result a regulatory revolution concerning the OTC market burst throughout the world. In fact, now there is no more an unregulated OTC derivatives market and the implementation of various reforms is introducing the new scenario for derivatives, which entails a different definition of the OTC market.

Though it is too early to perform a comprehensive evaluation of the efficiency of the increased regulation in OTC markets, it is worth recalling the G20 commitments and discussing the already observable changes in financial markets for the purpose of trying to understand how the OTC derivatives market will appear in around ten years.

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[58] Technical Committee of IOSCO, 2011. *Report on Trading of OTC Derivatives.* Public Report FR03/11 pp. 8-9, February 18 [online]. Available at <https://www.iosco.org/library/pubdocs/pdf/IOSCOPD345.pdf>.

[59] The definition of OTC derivatives is provided in Art. 2(7) of EMIR, while that of regulated markets in Art. 4(1)(14) of Directive 2004/39/EC.

As emerged from the earlier exposition of the new trading regimes for OTC derivatives, the regulators acknowledge the benefits of the standardized contracts and of trading on exchange platforms. Indeed, an exchange offers price transparency, effective competition and a liquidity commonly continuous in character. For that reason, after the financial crisis, electronic and multilateral trading platforms were created specifically for OTC derivatives (i.e. SEFs and OTFs), and thereby some OTC derivatives contracts can no longer be traded in the typical manner, that is bilaterally.

Another change affects all standardized interdealer trades, which have to be cleared through central counterparties (CCPs) in order to limit the high contagion risk that prior to the crisis was largely caused by an excessive percentage (about 75%) of non-cleared OTC transactions,[60] namely contracts not cleared through CCPs but cleared bilaterally via often insufficient risk reduction tools (netting and collateral). In this case the authorities, when considering whether an OTC derivative is standardized and then suited to mandatory CCP clearing, generally take into account the following factors indicated by the Financial Stability Board (October 2010):

- the degree of standardization of a product's contractual terms and operational processes;
- the depth and liquidity of the market for the product in question; and
- the availability of fair, reliable and generally accepted pricing sources.[61]

The largest portion of OTC standardized products that are today centrally cleared is composed of interest rate derivatives: close to 70% of their total market is estimated to be cleared (ISDA, January 2015). Hence, the derivatives industry is putting effort into this policy goal of moving toward central clearing, and it is expected an increasing part of the derivatives market will be cleared through CCPs as clearing services and mandates spread in much of the world.[62]

However, a significant proportion of the derivatives market continues to remain non-cleared, since instruments such as swaptions, cross-currency swaps and inflation swaps, though not regarded as suitable for central clearing, are vital for numerous entities to run their activities and to manage risk. According to the ISDA Study (April 2014), the size of the non-cleared segment of the interest rate derivatives market at year-end 2013 was around $123 trillion -

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[60] HULL, John C., 2014. *The Changing Landscape for Derivatives* [online]. Rotman School of Management Working Paper No. 2428983. Available at <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2428983&download=yes>.

[61] *See* INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, Inc., 2013. *Non-Cleared OTC Derivatives: Their Importance to the Global Economy*. Study, March 13 [online]. Available at <http://www2.isda.org/functional-areas/research/studies/> [Access time: March 2015].

[62] INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, Inc., 2015. *ISDA OTC Derivatives Market Analysis: Industry Meeting Clearing and Compression Goals*. Press Release, January 29 [online]. Available at <http://www2.isda.org/newsroom/press-releases/> [Access time: March 2015].

$141 trillion, and it is particularly stressed the importance of the continued functioning of this part of the OTC market (consisting of non-standardized products) not only for the market participants but also for the global economy.

On the contrary, global regulators encourage standardization requiring financial entities and systemically important non-financial firms to post initial margin on non-centrally cleared contracts. This margin requirement for non-standardized OTC derivatives raises their costs, in other words it aims to remove certain main advantages of these products: the low costs and the easy use. Consequently, some market participants subject to these more expensive capital requirements may move to centrally-cleared derivatives, and so involve a decrease in the bilateral trade. Especially the lower liquidity in the traditional OTC market concerns all those with a vested interest in the underlying (for instance companies), because they want to offload their idiosyncratic risks without too much difficulty and costs by means of the perfect hedges only available in the bilateral world.

In sum, there is a trade-off between the mutualization of risk thanks to more centrally cleared derivatives (i.e. more standardized contracts) and the negative impact on the global economy of the higher costs for hedging individual risks (i.e. higher margin requirements on non-standardized contracts and resulting lower number of bilateral trades).

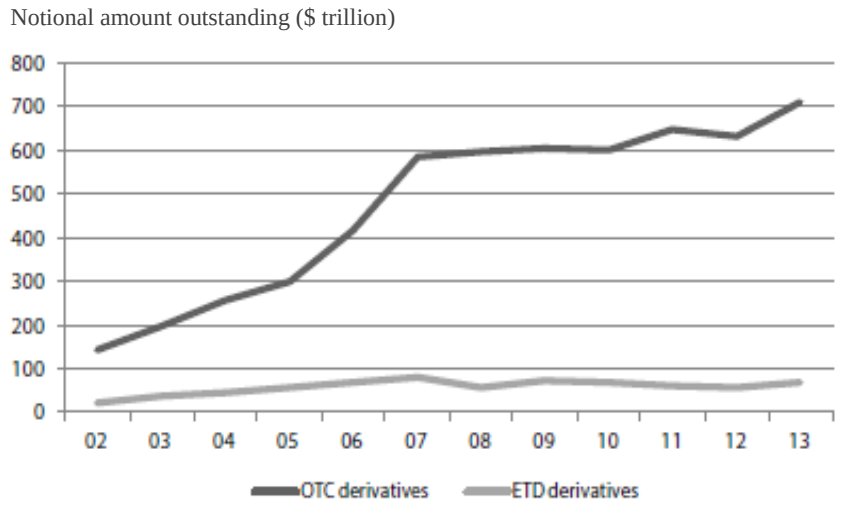
Lastly, a post-crisis financial reform demands that all OTC derivatives be reported to a central trade repository, and therefore all derivatives transactions are finally disclosed to relevant authorities which can realize a more effective market surveillance. Such alteration to the OTC market along with the previous ones (multilateral trading platforms and central clearing) demonstrate that financial regulations (as well as technology) are capable of generating radical changes in capital markets. More precisely, as a result of the 2008 financial crisis the global regulatory reforms, aiming for the level playing field amongst the financial instruments, are producing a convergence between OTC and exchange-traded markets. In practice, an OTC derivative when executed on a SEF or an OTF and promptly passed to a central counterparty resembles a lot a derivative product traded on an exchange. Moreover, the initial margin is demanded for almost all derivatives and many OTC contracts are centrally cleared.

On the other hand, this attempt by regulators of making OTC markets more similar to exchange-traded markets implies an increase in the number of standardized derivatives traded by market participants. In this regard, the exchanges offering new products as alternatives to some OTC derivatives (i.e. the ‘futurization of swaps’ as above-mentioned) contribute further to that standardization process. Accordingly, a smaller quantity of customized derivatives

contracts will endure and will be the only one to fill the bilateral OTC world, which will likely be less liquid and more costly following the various post-crisis reforms.

Despite these prospects that seem to blur the classic differences between the OTC derivatives market and the exchange-traded derivatives (ETD) market, the data are still not supporting a structural shift of OTC derivatives to exchange-like platforms, and indeed simply looking at the development of the notional amounts outstanding in the last decade (Figure 1.3) it's evident that even after the 2008 financial crisis the market for OTC derivatives continues to be much larger than the exchange-traded portion of the market.[63]

Figure 1.3 MARKET EVOLUTION: OTC vs. ETD



[Source: website http://www.ceps.be/publications/all?page=7]

In addition to an extraordinary growth rate over the last decade, the OTC derivatives market manifested during the past five years (2008-2013) a considerable resilience in volumes of market activity. In fact, as publicly reported by the Bank for International Settlements, the notional amount of outstanding contracts totalled $691 trillion at end-June 2014, that is, an amount above the pre-crisis levels, which reaffirms the systemic significance of the derivatives traded off-exchange.

However, the data still do not give evidence that the market share of multilateral trading platforms is enlarged because the trading obligations for OTC derivatives, besides taking some time, are not yet in force in many key jurisdictions (e.g., the EU). Thus, more time is needed to carry out a comprehensive assessment of the success of the regulatory reforms in meeting the G20's underlying goals. Nevertheless, the present regulatory landscape denotes that the OTC markets will converge with the exchange-traded markets, notably there will not

[63] AMARIEI, Cosmina, and VALIANTE, Diego, 2014. *The OTC derivatives markets after financial reforms* [online]. Centre for European Policy Studies, Publications, May 23. Available at <http://www.ceps.be/publications/all?page=7> [Access time: March 2015].

be an OTC derivatives market how the one that existed before the recent financial crisis:[64] unregulated with predominantly bilateral (or rather highly customized) transactions.

Obviously, there is no certainty that these predictions for OTC markets will occur exactly, but according to the new rules for derivatives, the bilateral OTC world is heavily put to the test by the regulatory inconsistencies between the OTC products and the exchange-traded ones. Therefore as affirmed by the ISDA (October 2012), at the moment, in order to implement accurately the financial reforms it is useful to regard the OTC derivatives market as a residual category instead of trying to associate it with a new more narrow definition that might be detrimental to the same markets. Specifically, the focus should be on defining the trading venues, the scope of the trading regimes for OTC derivatives, and doing so with the ultimate aim of safer and more efficient financial markets.

[64] *See* HULL, John C., *supra* note 61.

CHAPTER 2
THE ISDA MASTER AGREEMENT

It would be impossible to fully understand the OTC derivatives market without talking about the International Swaps and Derivatives Association, Inc. (ISDA) and the cornerstone of its standard documentation for the derivatives industry: the ISDA Master Agreement.

First and foremost, in order to appreciate the prime importance of the standard form contract developed by ISDA it is helpful to describe how today the actual life cycle of an OTC derivatives contract occurs, then to retrace the original OTC derivative documentation and the formation of the global trade association for OTC derivatives market participants.

2.1 LIFE CYCLE OF AN OTC DERIVATIVES CONTRACT

Before starting the trading activity in OTC derivatives, an entity that plans to enter into a series of derivatives transactions has to discuss this intention with a marketer, who, if that business is feasible, will contact a trader to talk of the specifics. Subsequently, if all is theoretically agreed, the marketer will ask the credit department for a specific dealing line, which will be granted only if the customer/entity passes the extensive analysis that inspects for instance its formal credit rating and its audited accounts for the past three years. Assuming a positive result of the examination, the credit department tells the marketer any conditions for use so that the latter together with the customer and the trader can discuss the timing and structure of every transaction.[65]

Additionally, before trading is undertaken it is very important to enter into a master agreement (e.g. an ISDA Master Agreement) that applies to all future OTC derivatives transactions between the two counterparties since this largely pre-printed agreement deals with the legal issues and risks which arise outside the framework of an individual trade, in fact it establishes a relationship between the two parties and governs the rights and obligations between them through a two-way application of many of its provisions. Typically, a master agreement is supplemented by documentation on collateralization, but this topic will be considered afterwards.

Once internal approvals and bilateral documentation have been carried out, the entity and the trader deal, that is, the two counterparties agree to a transaction. The trade execution of OTC derivatives occurs normally over the telephone, although for the standardised products the

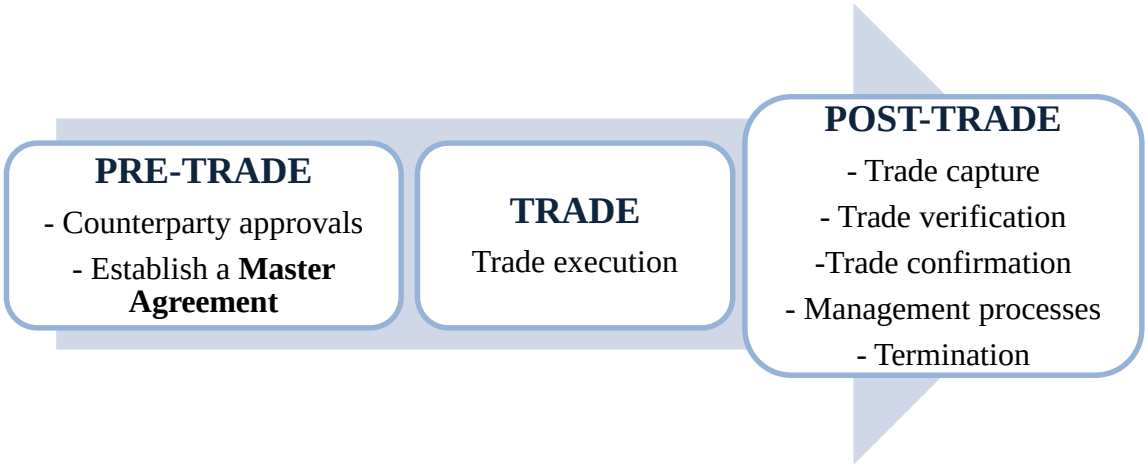
[65] HARDING, Paul C., 2010. *Mastering the ISDA Master Agreements (1992 and 2002): A Practical Guide for Negotiation*. 3rd Edition. UK: Financial Times Prentice Hall, pp. 9-10.

electronic trading systems are becoming more and more common. At this time one of the parties is chosen as responsible for the operation of the transaction: the 'Calculation Agent', who will determinate calculation amounts, all payments due, and so on.

When the deal is done the parties must input the details into their own internal systems for post-trade processing and risk management ('trade capture'). Furthermore, before the derivatives transaction is confirmed in writing, the parties can check a set of key economic aspects relating to the deal (a process called 'economic affirmation' or 'trade verification'). Then, the final agreed record of the single trade, the 'Confirmation', should be exchanged no longer than the following business day. This short document specifies the economic terms of the deal and it is incorporated automatically into the master agreement with which forms a single agreement between the parties. However, the confirmation process can be performed through two methods: the first one is called 'trade affirmation', as one party provides the pertinent details to the other, which checks that information, resulting in an agreed deal; the second way is the 'trade matching' whereby the two parties exchange their records of the trade or provide them to a third party service provider, and if all of details match, the deal is agreed.[66]

After the derivatives transaction has been confirmed, it will be subject to a series of further post-trade life cycle management processes, the organization of which will widely depend on whether the product is cleared bilaterally or by a central counterparty. These comprise collateral management, settlement of cash flows, portfolio reconciliation, portfolio compression and the termination of the transaction.[67]

In brief, the life cycle of an OTC derivatives contract can be represented in the following way:



[66] European Central Bank, 2010. *The Payment System* - Payments, securities and derivatives, and the role of the Eurosystem [online]. Frankfurt am Main: Tom Kokkola, pp. 100-101. Available at <http://www.ecb.europa.eu/pub/pdf/other/paymentsystem201009en.pdf>.
[67] *See id.* at p.101.

Nevertheless, sometimes, for diverse reasons, financial institutions may trade with a counterparty before a master agreement is signed. In this case the parties establish a sort of long confirmation, which ensures some protection but it will never be complete and flexible as the master agreement. Indeed, the long document often includes a provision that imposes a time limit (usually 30, 60 or 90 days after the transaction has been executed) within which both parties have to put a master agreement in place, otherwise the deal will be terminated.[68]

In regard to the termination of a derivative deal, it must be pointed out that counterparties many times decide to terminate or unwind the swap before its maturity date. In that case both parties confirm the decision together with the relevant information (e.g. termination price and date) in writing. The termination of a derivatives contract also occurs when the original agreement is cancelled out with an offsetting contract, and where the swap is given to another counterparty through assignment.

At the end of this description about how a classic swap deal is done from start to finish, it is already evident the significance of the master agreement in the OTC derivatives market: it has the ability to cover numerous transactions between two parties over a long period, and it takes exactly into account the features of derivatives. In fact, since these transactions involve arrangements that may last even ten or fifteen years, the master agreement has permitted the parties to create a legal and credit relationship of the same duration. On the other hand, being their credit exposure two-way and unknown at the inception of the deal, the master agreement has permitted to eliminate the costly and non-functional renegotiation of "non-economic" terms that substantially remain unchanged from one transaction to the next. However, further benefits of the master agreement will be clear when its typical provisions will be subsequently examined.

These functions performed by the master agreement were not so obvious originally. Indeed at the beginning of the swaps market, the definitive OTC derivative documentation took the form of long separate agreements for each transaction, specifically every agreement occupied from 15 to 25 pages for only one deal. At a later time, since many provisions turned out to be always the same among the various transactions, the major financial institutions developed master agreements with short supplements (1 or 2 pages) to express the economic terms of each deal.[69] Despite this, in the early 1980s there was the problem that the master agreement generated by each institution, including the definitions of the terms used in it, was unique: each dealer had its own standard form contract. Therefore, the predictable issue was that when

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[68] *See* HARDING, P., *supra* note 64, pp. 12-13.

[69] ALLEN & OVERY, 2002. *An Introduction to the Documentation of OTC Derivatives*. Paper, [online]. Available at <http://www.isda.org/educat/pdf/documentation_of_derivatives.pdf> [Access time: April 2015].

institutions traded with one another, considerable gaps between the two parties' forms and definitions arose and compelled the counterparties to spend large quantities of time and effort (not to mention the high legal fees) negotiating over these discrepancies. Moreover, "market participants fought about everything […] not because their position was necessarily, or even arguably, more correct but, invariably, because that position was more familiar […] a 'battle of the forms' quickly developed."[70]

In this situation where OTC derivatives deals were documented differently depending on the particular swap dealer included in the trade the ISDA was born.

2.2 INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION

The International Swaps and Derivatives Association, Inc., founded in New York in 1985 with 10 members, is today a transnational private trade association with over 800 member institutions from 67 countries on six continents. These members include a great variety of OTC derivatives market participants, key components of the derivatives market infrastructure (as an example clearinghouses and repositories), and in addition diverse service providers, such as law firms and accounting firms.

The Association promotes safe and efficient derivatives markets to make easier effective risk management for all users of derivatives products. ISDA achieves its goal by representing all market participants globally, furthering high standards of commercial conduct, and spearheading industry action on derivatives issues.[71] Its mission is officially recognized, as evidenced by some statements in 2005, on the occasion of the ISDA 20th Anniversary, of the then President of the European Central Bank Jean-Claude Trichet, and of the then Chairman of the Federal Reserve Alan Greenspan. They respectively claimed:[72]

> The ISDA plays an extremely important role in today's global financial environment. ISDA provides a forum for exploring ways of creating a level playing field for all participants in the markets for privately negotiated derivatives. […].
>
> ISDA played a major role in the development and maturation of the OTC derivatives markets and continues to make important contributions through coordinating efforts to mitigate the legal risks, counterparty credit risks, and operational risks that use of these instruments entails.

[70] *See*, FLANAGAN, S., *supra* note 9.
[71] INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, Inc., 2015. *Mission Statement*. About ISDA [online]. Available at <http://www2.isda.org/about-isda/mission-statement/> [Access time: April 2015].
[72] RISK, 2005. *ISDA 20th Anniversary*. Special report, March [online]. Available at <http://www.isda.org/anniversary/> [Access time: April 2015].

However, the true reason for the ISDA's formation was the intention of influential market participants to develop contractual standardization in OTC derivatives markets (though the latter at the time were in their infancy), and exactly the ISDA's production of standard form documentation for the OTC derivatives industry has been one of its most important achievements. Accordingly, it is worth describing the moment when the Association was born, and how it has achieved resounding success.

2.2.1 First step towards the swap standard documentation

In the early eighties, while a US market in interest rate swaps was growing rapidly, the major swap dealers encountered the same problem: backlogs of undocumented deals. In that market, the transactions were usually based on a non-standardised confirmation of questionable validity, and documentation was not signed for several months. Furthermore, with cross-border and more complex transactions the wide variety of documents increased the potential for sudden legal interruptions, such as conflicts of law and uncertainty over the legal enforceability itself of a given deal.

In those days, ten of the greater institutions involved in the swaps market[73] began to discuss the documentation backlogs and, considering the lack of a common language, the issue of extremely difficult communication between market participants. Then this group of firms decided to set aside their competitiveness and collaborate to establish some legal certainty over the novel derivatives products. In other words, they pushed for standardizing swap documentation in order to facilitate market activity.

Their first attempt to create a standard form contract did not have a good outcome, since some members of the group proved mostly focused on form and too distrustful to succeed in aligning their interests. As a result, they resolved to direct their attention to terms and provisions regularly used in swap agreements in order to create standard definitions, thereby permitting the market participants to speak finally the same language. At this stage, the group also involved the US law firm Cravath, Swaine & Moore (hereinafter Cravath) in drafting the "ingredients" of a swap contract, and therefore it possessed the different expertise necessary to develop robust definitions, that is a vocabulary able to ensure wide acceptance in the marketplace.

More importantly is that the less ambitious project of creating a joint dictionary[74] for the OTC derivatives industry succeeded in making the group members focus on substance rather than

[73] Salomon Brothers, Bankers Trust, Citicorp, First Boston Corporation, Goldman Sachs, Kleinwort Benson, Merrill Lynch, Morgan Guaranty, Morgan Stanley and Shearson Lehman Brothers.
[74] Instead of a complete, standardized master agreement.

on form, and consequently in making them reach a consensus about many definitions. That was possible because the participants in drafting each definition to originate in the end simply a list and not a contract were not concerned about their interests, in effect, they could use that sort of dictionary as they preferred. Additionally, the approach implemented to draft the vocabulary, taking the diversity of opinion into account, gained the confidence of members: they were certain that the outcome of the standardization process would not have ignored their interests. In particular, this process has become the standard process adopted by the membership for all subsequent documentation projects, so it is interesting to understand how it was capable of ensuring faith by the market.

Generally each topic was discussed by the group until the drafters (in this instance the Cravath lawyers) were able to capture a consensus in a draft definition or contract term, which then was circulated among members for comment and was debated at their meetings before being redrafted. Drafters often circulated a revised version many times, and in the wake of new comments and discussions they reviewed it. If, eventually, a consensus could not be reached between participants, a standard was not imposed on the group. Either the matter would be shelved or, if possible it would be arranged in a manner to give contracting parties the possibility of choosing from different options. This openness together with the broad participation and cooperation mostly contributed to the success of the process. That is to say, this process permitted the group to achieve its goal: developing a well-accepted standard form documentation.

Moreover, the drafters manifesting a constant diligence over the course of each process phase won approval by the industry, which acknowledged that they sought only to codify consensus to the extent it actually existed in the market. That was practically evident when drafters, at the time that a single consensus was reached, captured it and made such consensus a standard definition, but when the members just arrived at a prevalent view or a spectrum of views the drafters made the majority opinion an assumption out of which the parties were free to opt, and in the other case, they after having codified every opinion of the spectrum presented a list of standard terms from which parties could choose. In these three ways standardization was achieved, in fact this process is a three-tiered approach (the unique consensus, the prevalent view, and the set of opinions) able to standardize without disregarding diversity of opinion, and therefore it has the power to settle disagreements among diverse participants.

As before-mentioned, the result of the first application of this successful process was a document in menu format containing the standard terminology and provisions for an OTC derivatives contract, i.e., a menu with most of the building blocks for a swap master

agreement also permitting its users around the world to speak the same language, named the Code of Standard Wording, Assumptions, and Provisions for Swaps (the Code of SWAPS).
Before publishing the Code, the ten big dealers decided to form in 1985 the first interest rate swaps association, which primarily allowed them to jointly copyright the document that was thus released. That association of international scope was formally incorporated as a private non-profit company based in New York, and called the International Swaps Dealers Association (ISDA). The membership, as emphasized by its name, was initially limited to institutions that acted as dealers in the swaps markets. Hence entities that took part in those markets solely for risk hedging or asset/liability management (namely, end-users) were not eligible for belonging to the organization.
During this period of formation, the ISDA's board of directors comprising representatives from its members controlled directly every part of the Association's work, or rather the ISDA was run exclusively by its board which made any decision and operated the day-to-day management. On the other hand, the legal expertise was outsourced from the first moment: Cravath with its lawyers very engaged in the organization continued to be an outside counsel.

Ultimately, this trade association resulted from the successful resolution of the long discussion over fundamental definitions underlying the terms of each interest rate swaps transaction, and that was demonstrated by the publication of the SWAPS Code (1985 edition) soon after the ISDA's foundation. Notably such Code, as explained in the next section, was the initial promising step towards the standard form documentation for the swaps market.

2.2.2 Architecture of the ISDA documentation

Nowadays, when parties intend to enter into a sequence of numerous OTC derivatives transactions with each other, they mostly turn to an ISDA Master Agreement and, perhaps, an ISDA Credit Support document to secure their deals. In addition, they document each single trade by means of a short-form Confirmation which incorporates pertinent ISDA Definitions besides the economic terms and any related amendments. Exactly these documents created by the International Swaps and Derivatives Association constitute the contractual basis for the majority of the global OTC derivatives market.
That standard documentation, accepted by the entire industry, is the result of the ISDA's ability to build on its success. With the benefit of the standardized concepts and vocabulary that had been produced (the SWAPS Code of 1985), as well as the proven drafting process, immediately after its foundation the ISDA got back to work with the intention of maintaining its Code appropriate for the fast-moving derivatives market and, remedying eventual

weaknesses in the course of its use. Therefore the SWAPS Code was followed by updates and additions in 1986 and 1987 and a major revision in 1991, referred to as the 1991 ISDA Definitions. Subsequently the larger part of the definitional work has been concentrated in the production of Definition booklets in order to facilitate the composition of more standardized Confirmations for specific segments of the market.

More significant is that in the same period (i.e. shortly after the Association's formal creation), some ISDA members in London undertook a documentation project that had earlier seemed insurmountable: the creation of a complete, standardized master agreement. As above-said, during that time there was no a cross-border standard form contract for the privately negotiated derivatives, and ten dealers (which became then the ISDA's founders) made an abortive attempt to develop such standard agreement. Accordingly, the task assumed by ISDA was considerably important for the industry, since one its positive outcome would have helped a quick expansion of the market.

This time the ISDA members engaged in that standardization project were able to create a major breakthrough in the OTC derivatives market (namely, they achieved the long-awaited positive outcome of their project): in 1987 the Association published a pair of standard form master agreements – the first full, standard contracts for that market - one for US dollar interest rate swaps, and another for multicurrency interest rate and currency swaps. Collectively, these two standard master agreements are referred to as the 1987 ISDA Master Agreement, whose use expanded rapidly among market participants.

Eventually, two years after its establishment, the ISDA managed to create these first standardized master agreements, and especially because it was capable of properly exploiting its previous achievements. Firstly, it was adopted the already developed three-tiered approach to standardize taking into account the consensus reached in the market. For example, in case of cultural clashes at the end of a discussion about some contract terms, the eventual solution would have been to make those terms optional. On the other hand when a consensus was attained, the drafters ascertained that it was the most advantageous solution for the industry. For instance, by testing the market consensus that a single contract could not be adopted for both English and US law the ISDA lawyers found out that the differences in the contract forms of these countries were not really legally significant but rather were merely cultural remnants. Consequently the ISDA succeeded in producing a single master agreement that could (and can) be governed by US or English law, with the counterparties completely free to decide between the two laws by simply checking a specific section.[75]

[75] *See*, FLANAGAN, S., *supra* note 9.

Secondly, a large part of the work had already been carried out thanks to the completion of the SWAPS Code and subsequent definitions. In effect, the majority of the basic elements of a master agreement had already been created as well as stable working relationships and trust between the participants. All that made the standardization project much easier and in the end permitted the construction of a document in contract form instead of menu form.

In 1989 the Interest Rate and Currency Exchange Agreement was combined with the Schedule which was and still is an addendum that adds to and amends the standard provisions of the Master Agreement. Effectively the latter, as before-mentioned, is a largely pre-printed agreement, that is, the part of swap documentation that establishes a relationship between two counterparties willing to enter into a series of future OTC derivatives transactions. For that reason this contract can be amended and supplemented through the Schedule, which is negotiated by the parties' negotiators.[76] As a result the ISDA Master Agreement is viewed as the starting point for negotiation, and precisely this aspect makes it an extremely versatile agreement which in turn reflects a distinctive feature of the OTC derivatives market: the constant product innovations. It is not by chance that in 1989 and 1990 further addenda were issued by the Association to cover other derivative products (e.g. interest rate caps, floors, collars and options).

However, the 1987 Agreement was then subjected to a two-year revision process to:

- enlarge the range of products covered by the contract;
- promote netting across products;
- take account of changes in laws since 1987 especially in US bankruptcy law;
- consider alterations demanded by ISDA members due to market practice change.[77]

This long deliberation by a broad group of suitable participants resulted in the 1992 Master Agreement that was published in January 1993 together with a User's Guide. It is a market standard Master Agreement used globally and for a variety of derivative products, which are usually:

- interest rate swaps
- currency swaps
- forward rate agreements
- commodity swaps
- equity/equity index swaps
- options
- caps, collars, floors
- credit derivatives
- bullion (e.g. gold, silver)
- weather derivatives
- energy derivatives
- fund derivatives

[76] Attention has to be focused on negotiations where deals are outstanding or imminent.
[77] *See* HARDING, P., *supra* note 64, pp. 18-19.

- foreign exchange transactions
- property index derivatives
- inflation derivatives.[78]

In general the ISDA 1992 Master Agreement and related documentation are structured, among other things, to promote cross-product netting and permit parties to document all derivative transactions under a single master agreement. In this regard, the former chief executive officer of the ISDA Robert G. Pickel has argued that "the ISDA Master Agreement structure has the capacity to bring all bilaterally negotiated derivative instruments under the sheltering-umbrella terms of a central, legally enforceable relationship."[79]

The rationale for this artificial link between the transactions is that allows one counterparty to calculate a net exposure across all its positions with respect to another counterparty, and specifically this characteristic involves notable benefits:

- settlement-related costs are reduced since numerous swap payments are incorporated into a single payment (bilateral payment netting);
- the exposure to counterparty risk is reduced and, to be more precise bilateral position netting leaves counterparty credit risk unchanged but rather it reduces liquidity risks to counterparties relative to an absence of netting;
- in the event of termination of the relationship between the parties it is possible to terminate all of the constituent transactions and execute a calculation to come to one final, net sum owed by one party to the other (close-out netting).

First and foremost, netting arrangements need to be legally enforceable, and this can be an acute problem when dealing between jurisdictions, but the ISDA itself helps its members with a key initiative (the ISDA Opinions) that addresses the enforceability of its netting provisions.[80]

Once enforceable these terms, there may be further advantages for counterparties. For instance, when parties are prudentially regulated (e.g. the Basel and other similar capital standards), the netting provisions of the ISDA Master Agreement can reduce the required amount of capital against counterparty exposures. In addition, the market's greatest concern is for the counterparty insolvency which would mean, under many systems of bankruptcy law, that a liquidator could "cherry pick", that is, accept or reject individual contracts to its advantage, and a non-defaulting party would be precluded from recovering a sum owing to it

[78] *See* HARDING, P., *supra* note 64, pp. 24-25.
[79] *See* RISK, *supra* note 71, p. 4.
[80] However this initiative of the Association will be treat more clearly afterwards.

from the insolvent counterparty while making it liable for all outstanding payments.[81] In that case, the provisions of ISDA documentation for close-out netting benefit the non-defaulting party on the other party's insolvency by preventing a bankruptcy receiver from "cherry picking" individual swap contracts. Obviously, this special form of netting eliminates the risk of "cherry picking" by a liquidator because it allows the non-defaulting party to determine a single settlement amount by offsetting its future payment and delivery obligations to the insolvent party against the insolvent party's obligations to it.

In summary, with close-out netting which can follow the opening of insolvency procedures or other contractually agreed events of default a party entering into many OTC derivatives with a counterparty will be at risk from the counterparty default solely to the extent that the party is a 'net winner' over all of its derivatives with the counterparty. A 'net losing' party faces no risk of loss at all from a defaulting counterparty since it is not owed any net amount.[82]

Therefore, the ISDA 1992 Master Agreement, that has included for the first time provisions facilitating netting across products, has also become an important risk management tool. Moreover, since 1994 the ISDA has developed Credit Support documents that permit to take collateral in connection with an ISDA Master Agreement, hence this additional documentation collateralizing the relationship between the parties reduces credit risk. More precisely, the 1994 ISDA Credit Support Annex under New York law supports any collateral placed by one party with another to be subject to a security interest. This means that the collateral receiver only enjoys the possession (not the ownership) of the collateral which has to be returned in exactly the same form. On the contrary, the 1995 ISDA Credit Support Annex under English Law is a title transfer document that does not give rise to any security interest. Then the collateral can be freely used by the collateral taker who, at the end of the transaction, is only obliged to return equivalent cash or securities (not the actual collateral transferred to it).

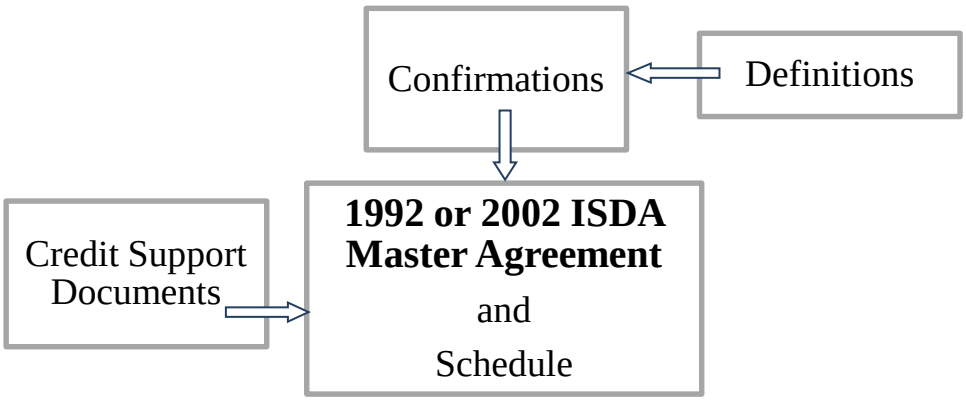
However, from the beginning the Association has repeatedly revised the completed documentation in order to ensure that it remains appropriate for use in the market, and this process of maintenance has been pivotal to make ISDA documents the accepted standard through the enormous industry growth and constant product innovations. A large part of the credit for the ISDA documentation accomplishments also belongs to a wide range of competent people taking part in drafting procedures. Such numerous experts on various areas ensured legally sound, understandable, and appropriate documents for the OTC derivatives

[81] *See* HUDSON, A., *supra* note 14.
[82] *See*, FLANAGAN, S., *supra* note 9.

market. About these two key aspects to success of the ISDA documentation are illustrative the review and the redrafting of the 1992 Master Agreement, which started in December 2001 and involved over hundred of ISDA members. That revision phase resulted in the publication of the 2002 ISDA Master Agreement on 8 January 2003, whose main changes took account of different events occurred after publication of the 1992 ISDA Master Agreement.
Nevertheless, the two ISDA Master Agreements have an identical structure and, for many years the 1992 Agreement was the leading, market standard multiproduct Master Agreement for parties who plan to undertake with each other a wide trading activity in OTC derivatives. On the other hand, the 2002 ISDA Master Agreement has begun to be much more used following the bankruptcy of Lehman Brothers in September 2008.[83]

Furthermore, it is worth considering a very innovative and extraordinary achievement of the Association still in the documentation sector: the production of ISDA Protocols since 1998. The first creation was the ISDA EMU Protocol (1998) which offered market participants a web-based mechanism for incorporating contract amendments to accommodate the European Monetary Union (EMU). Anyway, a protocol is a multilateral contractual amendment method that is used to deal with changes to ISDA standard contracts. Especially the ISDA Protocols' characteristic of implementing standard contractual amendments on a multilateral basis spares counterparties the costly and time-consuming bilateral negotiations.

In conclusion, it is important to highlight that all of the Confirmations entered into between two parties together with their ISDA Master Agreement, Schedule and Credit Support Annex are to be construed as forming a single contract.[84] This interconnection between the ISDA documents becomes apparent looking at the architecture of the ISDA documentation:



[83] *See* HARDING, P., *supra* note 64, pp. 24, 26.
[84] *See* HUDSON, A., *supra* note 14.

The ISDA Master Agreement and the Schedule constitute the core of the documentation, and their importance cannot be understated. This standard form contract by means of its open architecture (consolidating all transactions to form one contract) provides legal and credit protection and, is today the most important master agreement on which business is done internationally.

The ISDA's significant accomplishments in the documentation area have made possible the vigorous expansion of the privately negotiated derivatives from their childhood, since the Association has been the only capable of handling and reducing legal uncertainty, credit risk and other problems in the OTC derivatives market.

2.2.3 Development of a unique organization

From the late 1980s to the mid-1990s, how the standardization of swap documentation by the ISDA facilitated the rapid growth of the OTC derivatives market, in the same manner the wide progress of industry led on to the Association's growth both in regard its membership and in regard the scope of its activities.

As above-mentioned, the ISDA was originally established by and for the derivatives dealers but, as the trade of privately negotiated derivatives increased, other market players developed their own views and requests which also needed to be represented. As a result in 1988 the Association enlarged its membership to include in addition end-users of swaps and service providers to the industry. Practically the ISDA created three membership categories that still exist today: Primary Members are entities that deals in derivatives as part of their business (i.e. dealers); Associate Members are service providers active in the OTC derivatives industry (e.g. brokers, law firms and exchanges); and Subscriber Members are entities that use OTC derivatives to better manage financial risks (i.e. end-users, such as corporations, financial institutions and governments).

While the diverse Association members increased, the board of directors was expanded, but the ISDA's staff continued to be small. This because the daily operation of ISDA remained controlled by the board and the staff functions were carried out by the Executive Director. More importantly is that in that period on the ISDA board of directors only Primary Members could be represented and only they could vote in board elections, thus the dealers mainly influenced the Association.[85] However, following the growing diversity in its membership, principally in terms of the types of products traded, the ISDA in 1993 altered its name from

[85] *See*, FLANAGAN, S., *supra* note 9.

International Swaps Dealers Association to International Swaps Derivatives Association preserving its original acronym.

During this period of growth, in order to address the new OTC derivative products and markets a huge range of committees was set up at the ISDA and, those nascent groups were left to organize themselves in the most efficient way to manage their work. Each committee would allow some members to gather and discuss numerous opinions on a specific topic, and then take a joint action with respect to it. Thanks to this framework, put into place by industry needs, the ISDA can be constantly and economically updated on many matters because its committees succeed in dealing with different issues at the same time.

Besides the enlargement of the ISDA's membership base, from the late 1980s the growth of the OTC derivatives industry drove the Association to widen the scope of its activities beyond just documentation. Moreover, in a short time the ISDA, through both its early successes in the field of swap documentation and the economic power of its key members, gained the credibility in the eyes of regulatory authorities. These latter additionally trusted the ISDA which from the start, exploiting that favorable position, tried to educate them on issues important for the market participants. Even though the ultimate aim of such informative activity was to persuade the legislative authorities by means of regulators, who were the only ones able to effectively transmit them the ISDA's instructions.[86]

Therefore, the Association has steadily worked to maintain good relationships with regulators, governments and supervisors around the world for the purpose of supporting the legal enforceability of its master agreements and related documents, as well as lobbying for the industry interests.

In regard to relationships with the regulators, the ISDA has been active on the capital front from back in 1988 when the first Basel Capital Accord was published, and then, in the early nineties ISDA attempted to gain recognition of netting for capital relief purposes by the Bank for International Settlements (BIS). Those efforts were worthwhile, since in 1994 the BIS recognized the effects of netting provisions in calculation of the capital levels needed to support derivatives transactions.[87] As a consequence, shortly after this recognition both the OTC derivatives market and the ISDA's membership increased incredibly.

Furthermore, the Association reached significant results concerning the reduction of ex ante legal uncertainty of the ISDA Master Agreements, notably of some provisions. Firstly, ISDA has successfully lobbied for making close-out netting provisions statutorily guaranteed, that

[86] *See* RISK, *supra* note 71, p. 16.
[87] *See id.* at p. 7.

is, ISDA would have wanted in each country a legislation that explicitly recognized the validity of netting agreements for privately negotiated derivatives contracts in bankruptcy contexts. In this regard, a highly important achievement of the ISDA was that in 1989 the US legislators confirmed the netting provisions' enforceability in transactions involving insolvent US banks. And besides, in 1990 the US Congress extended 'safe-harbor' protections to swap agreements. In fact 'safe harbors' had already been inserted in the US Bankruptcy Code in order to exempt the financial markets from some provisions, so that no single bankruptcy disrupts the functioning of the financial markets. In other words, 'safe harbors' serve a policy of protecting financial markets in this instance. However, in the late 1980s the Congress acknowledged the growing significance of interest rate swaps and tried to protect the swap market from the legal risks of bankruptcy. The ISDA actively took part in the enactment of the 1990 amendments to the Bankruptcy Code that added Section 560 and other 'safe-harbor' provisions, which were intended "to ensure that the swap and forward contract financial markets are not destabilized by uncertainties regarding the treatment of their financial instruments under the Bankruptcy Code."[88]

Another great achievement of the Association are the legal opinions on the enforceability of netting provisions of the ISDA Master Agreement that, from the 1990, it has begun to obtain globally. These legal opinions, which the ISDA commissions from reputable law firms in an ever-increasing number of jurisdictions, are provided only to ISDA members and constitute a mechanism for bolstering confidence that transactions may not be liable to disruption by unexpected interpretation.[89] As of now, ISDA has achieved netting opinions for over 55 jurisdictions and, has obtained legal opinions on the ISDA Credit Support Documents from over 50 jurisdictions as well.[90]

This persistent search for more legal certainty was also pushed by some low moments for the industry, such as Hammersmith & Fulham, Orange County, Procter & Gamble, which affected everything the ISDA was doing and jeopardized its relationship with politicians and regulators. Nevertheless, the Association deciding to make risk management a major area of its activity and debating with regulators on behalf of the OTC derivatives industry helped the market to overcome the 1993-95 period relatively unharmed. The ISDA's strong commitment to the risk management was formalized in 1994 with the creation of a risk management

[88] *See* INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, Inc., 2012. *Michigan State Housing Development Authority v. Lehman Brothers Holdings Inc., et al.* Amicus Brief, August 20 [online]. Available at <http://www2.isda.org/functional-areas/legal-and-documentation/amicus-briefs/> [Access time: May 2015].

[89] *See* BIGGINS, J., *supra* note 6, p. 1314.

[90] INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, Inc., 2015. *Member Benefits*. Membership [online]. Available at <http://www2.isda.org/membership/member-benefits/> [Access time: May 2015].

committee and, in 1996 through modifications to its mission statement to include risk management.

Regarding the ISDA's involvement in political and regulatory debates about the OTC derivatives market, the ISDA has acted both as an advocate for the industry and as instrument for its self-regulation. Indeed, in those years the Association was able to gain the support of public regulators to prevent them from regulating the industry in the way that some wanted to do. Therefore, the ISDA's influence in the regulatory regime for OTC derivatives was already apparent.

The above-cited non-documentation activities, over the course of the nineties, became key points of the ISDA's work and, contributed to its success as an organization. Though, other factors that helped the Association's success can be identified after the mid-1990s.

Since the mid-1990s the ISDA has continued to grow in size and scope thanks to considerable changes in its control model given that, following the expansion of its activities and the institution of a vast range of committees, the ISDA needed to develop a much more significant staff.[91] The board, admitting its own limitations on controlling almost all parts of the Association's work, agreed to increase the size, capabilities, and set of duties of the staff as well as it assigned the committees more responsibilities. Accordingly, the large number of committees, steered by their presidents and staff, began to perform much of the ISDA's operations allowing membership and staff to participate much more actively in policy development than they did previously. On the other hand, the board of directors continued to control especially wider policy issues (e.g. the establishment of new committees).

That adjustment to the ISDA's control structures in response to growth demonstrated the flexibility of the organization, and precisely this feature permitted ISDA to adapt quickly to the fast-moving market of OTC derivatives. For that reason the ISDA can be considered a unique association in the financial industry.

In addition, in mid-1990s the ISDA began opening offices across the globe: in 1996 in London, in 2000 in Tokyo and Singapore, and so on. Besides the international scope of the ISDA, its membership eventually reached a well-balanced division, namely, a third dealers, a third service-providers and a third end-users. All of members are eligible to receive the Association's legal opinions (before-mentioned), to participate in the ISDA's numerous committees, to obtain market surveys, policy papers that ISDA carries out and other less important benefits. Conversely, as enunciated by the ISDA's by-laws, only Primary Members

[91] *See* RISK, *supra* note 71, p. 10.

are entitled to vote on "all matters submitted to a vote of the membership. Except as may be required by law, Associate Members and Subscribers shall not be entitled to vote."[92]

In the late 1990s, ISDA played a central role in the enactment by US Congress of the Commodity Futures Modernization Act of 2000 (CFMA), that is, the US federal legislation that officially assured the deregulation of OTC derivatives. Thus, the ISDA once again showed its function of fundamental conduit for the industry lobbying towards legislators and regulators. Furthermore, that indirect public recognition of the ISDA's expertise in the OTC derivatives market pushed the industry to take advantage of the ISDA as "amicus" in certain derivatives cases before the courts. In fact the Association, being well positioned to deal with issues that affect the OTC derivatives market, intervenes through amicus briefs in court cases worldwide that raise matters to the industry. For instance, ISDA has filed many briefs addressing the interpretation of the safe harbor provisions in the US Bankruptcy Code as well as protecting ISDA documentation provisions (as illustrated in the next chapter).

To conclude, the ISDA has grown steadily from the time of its creation up to the present maintaining a flexible governance structure that proved to be capable of adapting to any need of the industry. In the wake of the recent financial crisis, in effect the Association established another new governance structure that better satisfies the request of a greater transparency. Moreover, ISDA is continuing to participate in the public regulatory reform processes concerning the OTC derivatives market since the beginning of the global financial crisis. Therefore, the ISDA thanks to its successes in the documentation area has taken a lead role in regulatory matters and in the development of legal certainty, all for the OTC derivatives industry. And in particular its relations with the relevant actors (i.e. regulators, legislators and judges) have been preserved until today despite all of high profile bankruptcies and losses associated with OTC derivatives.

2.3 THE ISDA MASTER AGREEMENT STRUCTURE

To better understand the pivotal role of the ISDA Master Agreement in the OTC derivatives market it is necessary to also observe its components, known as Sections, which include mostly pre-printed (i.e. standard) provisions addressing legal issues and risks that can arise from any derivatives transactions between the two parties.

The 1992 ISDA Master Agreement is divided into the following 14 Sections:

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[92] *See* INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, Inc., 2014. *By-laws*. Section 10 of Article V, June 4 [online]. Available at <https://www.isdadocs.org/membership/bylaws.pdf> [Access time: May 2015].

1	Interpretation	8	Contractual Currency
2	Obligations	9	Miscellaneous
3	Representations	10	Offices: Multibranch Parties
4	Agreements	11	Expenses
5	Events of Default and Termination Events	12	Notices
6	Early Termination	13	Governing Law and Jurisdiction
7	Transfer	14	Definitions

The 2002 ISDA Master Agreement has exactly the same structure except that Section 6 is entitled Early Termination; Close-out Netting.[93]

Section 5 and 6 are the heart of the Agreement. The first one contains the Master Agreement's Events of Default and Termination Events, and Section 6 describes close-out netting mechanism when an Event of Default or Termination Event occurs. In this regard, a significant thing to bear in mind is that when a Non-Defaulting Party decides to trigger close-out due to an Event of Default all Transactions are terminated without exception. That because the ISDA Master Agreement is a netting agreement and all Transactions depend upon each other, as the Section 1(c) outlines clearly (the single agreement concept).[94]

Combined to the standard Master Agreement text, there is a Schedule which adds to or amends the standard terms of the ISDA Master Agreement. The Schedule is what negotiators negotiate, and it is usually divided into six Parts:

Part 1 – Termination Provisions

Part 2 – Tax Representations

Part 3 – Agreement to deliver Documents

Part 4 – Miscellaneous

Part 5 – Other Provisions

Part 6 – Foreign Exchange Transactions and Currency Options

From the experience of Harding (2010, p.26), Part 1 and 5 of the Schedule are the most negotiated. Anyway, the Schedule allows counterparties to negotiate those provisions that are dependent on the circumstances of a particular deal and therefore are expected to be amended. On the contrary, the provisions which above all make the ISDA Master Agreement a standard form contract are those that are not dependent on the circumstances of a specific deal and are

[93] *See* HARDING, P., *supra* note 64, pp. 25-26.

[94] Section 1(c) *Single Agreement.* "All Transactions are entered into in reliance on the fact that this Master Agreement and all Confirmations from a single agreement between the parties […], and the parties would not otherwise enter into any Transactions." *See* the 1992 (or 2002) ISDA Master Agreement.

not expected to be amended. These non-negotiable terms, that increase certainty and reduce trading and opportunity costs, have enabled the Association to increase the liquidity and consequently the expansion of the OTC derivatives market. Such outcomes have been the first and immediately noticeable effects of the standardized Agreement used worldwide, but there have been additional effects at a later time.

2.3.1 Side effects of the ISDA Master Agreement

This general outline of the ISDA Master Agreement structure points out how international contractual standards established by the ISDA govern the privately negotiated derivatives transactions. These standard form contracts, in part alterable through the Schedule, might be regarded as international legal rules able to reduce legal uncertainty and some risks of the OTC derivatives. Accordingly, the Association thanks to its standardized and at the same time flexible documents has created an internationally coordinated and harmonized regulatory framework over the industry, allowing market participants to transact wherever with relative ease. In short, the ISDA acts as a kind of transnational private regulator despite its nature of non-regulatory institution (aspect that was particularly evident before the global financial crisis – GFC, 2007-2008).[95]

The widespread usage of ISDA Master Agreements and standard terms across the world, as above-mentioned, has great benefits, such as huge cost efficiencies and legal certainty, but it has in addition significant risks, which have mainly been brought out in the wake of the GFC, more precisely following the bankruptcy filing in US of Lehman Brothers Holdings Inc. on September 15, 2008. This episode, as Biggins (2012, p.1309) defined, was a crucial watershed moment for the OTC derivatives industry, because it reminded market participants of the potential lack of certainty over the way public courts choose to interpret and enforce their financial contracts.

There have been contradictory court decisions from cases with analogous facts even between New York and English courts, whose jurisdictions are considered to be 'derivatives friendly' and indeed the ISDA User's Guide for the 2002 Master Agreement highlights: "Parties that wish to elect a governing law for the 2002 Agreement other than English law or the laws of the State of New York should carefully consider such an election with their legal advisers."[96] That because the ISDA Master Agreement was composed with the requirements of the common law codes of those jurisdictions in mind, as stressed by Section 13 of the Agreement

[95] COLLARD, K., 2015. Advantages of a Co-Regulatory OTC Derivatives Regime. *Georgetown Journal of International Law* [online], 46. Available at <http://www.lexisnexis.com/hottopics/lnacademic/> [Access time: May 2015].
[96] *See* BIGGINS, J., *supra* note 6, p.1316.

which offers a choice between English law and the laws of the State of New York to govern the contract, although it recognizes the possibility that parties could choose a governing law in Part 4(h) of the Schedule different from English law or the laws of the State of New York.

The reasons behind the serious potential for contradictory judgments and wrong court decisions are several, but the main cause seems to be that the public courts globally represent a too inefficient and expensive decentralized system with no supreme court able to settle contradictory opinions and understand perfectly finance (both the market practice and key financial market contracts). Exactly that worries the OTC derivatives market, since any court case concerning an ISDA Master Agreement can have third party effects, that is, the standardization of the Agreement widens the effects of a court decision beyond the two parties involved in the litigation. As a result, judges with their decisions can be a source of systemic risk in the OTC derivatives market.[97]

However, such outcome emphasizes that on the one hand, the judges are to relate principles of law and regulations which are national to real world facts which in our case are often international and, on the other hand, the judges are to understand complex financial transactions in addition to interpret the ISDA Master Agreement (and related documents), namely, the standard form contract used globally and created by a transnational private trade association: the ISDA.

Looking at these side effects of the ISDA Master Agreement in a broader framework, it is possible to make some important observations. First of all, the specter of the systemic risk, which arose following recent critical times in the financial markets, has prompted the public regulatory authorities across the world to engage in financial regulation, especially the regulation of the OTC derivatives market. For this complex marketplace the policy makers and regulators have assumed that more regulation is the only solution capable of providing greater certainty to market participants. Unfortunately, in this global and fast-moving market of OTC derivatives the national implementation of financial rules raises certain significant problems (e.g. regulatory uncertainty, market fragmentation, and higher costs) which, as described in the first chapter, could be a threat to the soundness of financial markets. That remark allows to realize how little attention has been paid to the role of judges in mitigating risk in financial markets.

In this regard, Golden (2013) argues that the financial regulation is a kind of 'preventive medicine' and the courts are accordingly our 'hospitals'. Therefore, he maintains that the

[97] GOLDEN, J., 2013. Regulation of Over-The-Counter Derivatives: Judges and Systemic Risk in the Financial Markets. *Fordham Journal of Corporate & Financial Law* [online], 18. Available at <http://www.lexisnexis.com/hottopics/lnacademic/> [Access time: May 2015].

condition of the courts and whether there is enough qualified staff for them are issues that should be more considered, since in litigations regarding derivatives and complex products the courts as above-said can be a source of systemic risk. On the other hand, Golden asserts that the judges can also be potential allies of the regulatory authorities in the battle to protect financial markets from systemic risk, though for such outcome are needed important enhancements.

At this point, after essentially analyzing the legal rules that have been generated ex ante from public bodies (i.e. financial regulation) and from private actors (i.e. ISDA Master Agreement), it is time to examine in depth the role of judges in the OTC derivatives market (i.e. ex post public adjudication).[98]

[98] PARTNOY, F., 2014. The Timing and Source of Regulation. *Seattle University Law Review* [online], 37. Available at <http://digitalcommons.law.seattleu.edu/cgi/viewcontent.cgi?article=2210&context=sulr> [Access time: May 2015].

CHAPTER 3
JUDGES IN THE MOST COMPLEX FINANCIAL MARKETS

More than ninety percent of the OTC derivatives market (that is, a notional amount of about $700 trillion) is governed by a single standard form contract: the ISDA Master Agreement. When one of its standardized terms is challenged in court, most of the market participants can learn from the result since all of them are using identical terms. Moreover, the outcome of a case regarding some OTC derivatives may depend on the judge's interpretation of only two words in the ISDA Master Agreement governing these products. Therefore, it is important that judgments in financial market cases are correct, in particular where they can have third party effects.[99]

Unfortunately, the numerous cases involving OTC derivatives that have been brought before a judge in the wake of the recent global financial crisis reveal a high possibility of court's mistakes in interpreting the ISDA Master Agreements and related documentation. Especially, as set forth below, the fragmentation of the legal landscape results in conflicting court decisions on the same facts between different jurisdictions while the financial industry operates globally through a wide network of closely connected financial centers and requires a satisfactory resolution across a number of jurisdictions.[100] In addition, leading courts in the major financial centers have occasionally interpreted both public laws and the ISDA Master Agreement in very adverse ways for most participants in the OTC derivatives industry, generating worries and uncertainty. In brief, the crisis has shed light on the boundaries of existing financial law.

3.1 CONFLICTING RULINGS

All three cases shown below arose from pre-crisis financial transactions that turned sour due to the bankruptcy and later collapse of the global financial services firm Lehman Brothers. Prior to declaring bankruptcy in 2008, Lehman Brothers was the fourth-largest investment bank in the US (behind Goldman Sachs, Morgan Stanley, and Merrill Lynch). As a consequence, its huge failure made a mark on the history and is generally thought to have

[99] *See* GOLDEN, J., *supra* note 96.
[100] MUGASHA, A., 2011. Global Financial Transactions and Jurisdictional Fragmentation: Inconsistent Decisions by Leading Trans-Atlantic Courts. *Penn State International Law Review* [online], 29. Available at <http://www.lexisnexis.com/hottopics/lnacademic/> [Access time: May 2015].

contributed to the outbreak of the recent financial crisis. In fact such multinational bank, operating through a complex corporate group, clarified how a problem that takes place in one member of the group in one jurisdiction may have a global reach and, the fact that the resulting litigation is characterized by a multi-jurisdictional nature.[101] The first and second court cases examined in this chapter exemplify the latter aspect, since they consist of parallel court actions where the same facts were litigated in the two leading financial centers of New York and London.

However, the following court decisions have been selected in order to emphasize that differences in the courts' approaches as well as the different laws might be a real problem because their incongruity raises an acute counterparty and legal risk for the international financial system, especially in the short term when the uncertainty prevails among market participants. Notably, the conflict between insolvency laws in the US and UK becomes apparent in the first two cases (*Perpetual* and *Belmont*) concerning the validity of a provision routinely used in securitization and structured finance transactions (i.e. the 'flip' clause). On the other hand, the third case (*MSHDA*) with regard to the method that properly should be used in calculating the 'Settlement Amount' for an ISDA Master Agreement shows a reading of the 'safe-harbor' protections to swap agreements (i.e. Section 560 of the US Bankruptcy Code). More importantly, that reading contrasts with the more narrow interpretation of the safe harbor provisions issued previously in the *Perpetual* case by the same Judge Peck. Inconsistency that has left every market participant confused and, above all, illustrates that in the court cases relating to the most complex financial markets the conflicting rulings can arise from even the same judge.

3.1.1 *Perpetual* case v. *Belmont* case

In the context of Lehman Brothers insolvency, complex financial derivatives (synthetic collateralized debt obligations, also known as synthetic CDOs) have entailed in two jurisdictions (English and US) a fundamental question: whether 'flip' clauses are void under either the English bankruptcy law (*Belmont* case) or the US Bankruptcy Code (*Perpetual* case). The courts in the leading financial centers of London and New York have considered the enforceability of these standard provisions in the securitization transactions and have come to different conclusions.

First of all, it is important to understand the role of the 'flip' clauses in a typical synthetic CDO transaction. A synthetic collateralized debt obligation is a derivative created from

[101] *See* MUGASHA, A., *supra* note 99.

the securitization of a portfolio of credit default swaps. At the centre of this financial structure there is a special purpose vehicle (SPV) that issues tranches of debt securities, the performance of which depends on a pool of underlying assets (e.g. loans or corporate bonds). In the case of synthetic CDOs such assets are not owned by the SPV, but the latter takes exposure to them through credit default swaps with a financial counterparty. Furthermore, the issuer (i.e. the SPV) typically invests the subscription proceeds, paid by investors for the CDOs, in government bonds and other secure assets, namely, a portfolio of AAA-rated assets (the collateral). That portfolio is used to produce income in order to pay interests on the CDOs and, on the occurrence of a default of any of the underlying risky assets to which the SPV is exposed, to pay the financial counterparty the loss due under the credit default swap. However, each event of default under the swap in turn leads to a corresponding decrease in the principal and interest due from the issuer to the CDO investor (also referred to as the noteholder), even though being the synthetic CDOs ordinarily divided into tranches (based on the amount of credit risk assumed) any loss affects the lowest rated tranches first and the highest rated last.

Nevertheless, in this kind of structured finance transactions involving derivatives, the noteholders do not usually take a risk on the solvency or creditworthiness of the swap counterparty, and exactly in that regard the relevant documentation provides provisions dictating the priority ranking that would apply between the noteholders and swap counterparty in relation to the realisation of the collateral: the 'flip' provisions. In fact, such clauses generally state that the swap counterparty is entitled to be paid first from the proceeds of the sale of the collateral in the case of default under the swap and, on the other hand, they "flip" the priority of payments when the trigger for the realisation of the collateral is an event of default by the swap counterparty (e.g. insolvency or a rating downgrade). This reversal, with intent to mitigate the impact of the swap counterparty default, has the effect that any termination payment due to the swap counterparty is only payable after the noteholders have been paid.[102]

Following this generic description it is time to study the specific background of the two conflicting rulings that, as above-mentioned, were based on the same facts which concerned a synthetic debt repackaged note issuance programme, also known as "Dante Programme", set up by Lehman Brothers International Europe (LBIE) in 2002. That programme was

[102] REYNOLDS PORTER CHAMBERLAIN, 2010. *Conflicting approaches to prioritization of payments from synthetic CDOs.* Commercial Litigation Bulletin, June [online]. Available at <http://www.rpc.co.uk/index.php?id=679&cid=1424&fid=22&task=download&option=com_flexicontent&Itemid=49> [Access time: May 2015].

accompanied by a very complex documentation whose basic transactions were those outlined below.

LBIE had established a special purpose vehicle (SPV) that issued notes to investors (the Noteholders) in the form of synthetic CDOs. The subscription money received from investors was used by the SPV (the Issuer) to purchase the collateral which was then vested in a trustee (BNY Corporate Trustee Services Ltd, hereafter "the BNY Trustee") pursuant to a trust deed and a supplemental trust deed.[103] Additionally the Issuer entered into a credit default swap agreement with Lehman Brothers Special Financing Inc. (LBSF) under which the parties agreed how to pay interest and principal to the Noteholders:

- LBSF paid the Issuer regular amounts due by the Issuer to the Noteholders by way of interest; in return, LBSF was rewarded with sums equal to the interest received on the collateral.
- At maturity of the notes (or at early redemption or termination), LBSF was to pay the Issuer the initial amount subscribed by the Noteholders less amounts (if any) calculated by reference to 'credit events' occurring during a pre-established period by reference to one or more reference entities, such as bankruptcy or some other form of default on debt issued by those reference entities (the Reference Debt). As a result, the more credit events there were, the less that LBSF would be obliged to pay to the Noteholders (it could potentially decrease to zero). In exchange, LBSF would receive the proceeds of the collateral.[104]

It is needed to stress the fact that this arrangement was 'synthetic', that is, no party actually owed the Reference Debt. Therefore, as stated by the international law firm Ashurst (2011), "the Noteholders and LBSF were merely investing on the basis of their speculation of the performance of the Reference Debt."

Moreover, it is worth observing that the collateral was administered by the BNY Trustee in order to secure the Issuer's obligations to the Noteholders under the terms and conditions of the notes and to LBSF under the swap agreement. In particular, as reported by the Lord Collins in his judgment given in the Supreme Court of the UK in *Belmont* case (2011, UKSC 38), "the claims of LBSF and the Noteholders were limited to the Collateral and they had no right of recourse against the Issuer." In effect, the essence of the commercial transaction

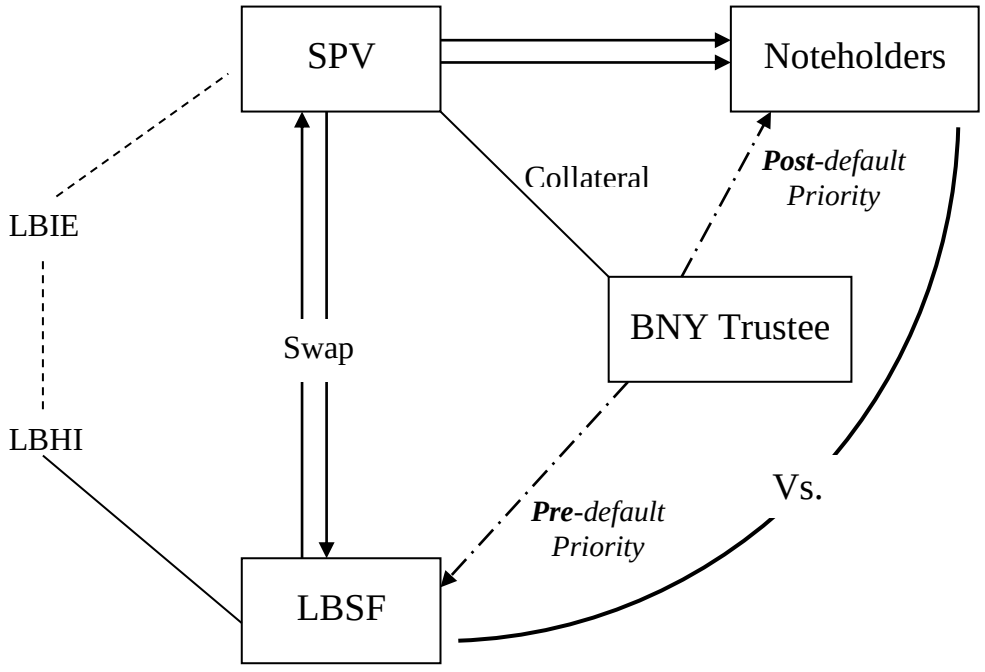
[103] *Belmont Park Investments PTY Ltd v BNY Corporate Trustee Services Ltd and Lehman Brothers Special Financing Inc* [2011] UKSC 38, pp. 7-10. Available at <https://www.supremecourt.uk/decided-cases/docs/UKSC_2009_0222_Judgment.pdf>.

[104] ASHURST London, 2011. *The anti-deprivation principle: A clearer road map … but still no clear rule and some directions still needed*. Restructuring and special situations group briefing, August [online]. Available at <https://www.ashurst.com/publication.aspx?id_Content=17> [Access time: May 2015].

between the parties was that the Noteholders sold credit protection and LBSF bought credit protection on the Reference Debt.

Additionally the documents of the programme were expressly governed by English law and consisted of: the ISDA Master Agreement between the Issuer and LBSF, which constituted the credit default swap agreement; the Principal Trust Deed (between the Issuer and the BNY Trustee) and the Supplemental Trust Deed, both governed the notes along with the Terms and Conditions attached to the prospectus sent to investors. In that case, the 'flip' provisions, whose validity was the central issue in the litigations here discussed, were included in the Supplemental Trust Deed that, made between the Issuer, the BNY Trustee, LBSF and LBIE, amended the note issue.[105] Such clauses (described above in general terms) stated that the order of priority to the distribution of proceeds of the realization of collateral changed following an event of default under the swap agreement if the defaulting party was LBSF or its guarantor under the swap, that is, the parent company of the Lehman group: Lehman Brothers Holdings Inc (LBHI). In other words, LBSF would have priority in relation to collateral unless there were an event of default in respect of which LBSF (or LBHI) was the defaulting party, and in this last case the Noteholders would have priority over Lehman Brothers. The events of default under this swap agreement were numerous and included the institution by LBSF or LBHI of insolvency proceedings.

These fact can be summarized in the following diagram:



[105] *See* note 102, pp. 12-16.

On 15 September 2008 and 3 October 2008 respectively, LBHI (parent company of LBSF) and LBSF filed for Chapter 11 bankruptcy protection in the Unites States. Both the acts constituted events of default under the terms of the swap agreement and thus triggered the operation of the 'flip' provisions, such that the priority of claims to the collateral (held by the BNY Trustee) was altered: it switched from LBSF to the Noteholders. The BNY Trustee, pursuant to the direction of the Noteholders, prompted the Issuer to terminate the credit default swap with LBSF. But LBSF (the swap counterparty) challenged the Noteholders' claim to priority, arguing that it offended the 'anti-deprivation' principle under the English bankruptcy law and was therefore void. In addition, LBSF insisted that by modifying its right of priority to the proceeds of the collateral following its default, the 'flip' provisions unlawfully deprived it of property to which it was entitled in its bankruptcy.[106]

However, the practical reason for understanding whether the subordination of LBSF's ranking on the event of the Lehman Brothers insolvency was void lay in the fact that various payments (or 'unwind costs') were due to the swap counterparty, i.e. LBSF, following the early termination of the "synthetic" arrangement. Accordingly, switching the priority (in relation to collateral) to the Noteholders very little if anything would remain to meet the 'unwind costs' due to LBSF.[107]

Later in May 2009, proceedings were commenced in the United Kingdom against the BNY Trustee by Perpetual Trustee Company Ltd (Perpetual) that, holding some notes issued as part of the "Dante Programme", claimed that the Noteholders had priority to the proceeds of the realization of collateral by virtue of 'flip' clauses, which should be honoured. Separate English proceedings to similar effect were issued in June 2009 by a further group of Noteholders known collectively as the Belmont Noteholders. LBSF was joined as a party to oppose both those applications.[108]

On the basis that the insolvencies of both LBHI and LBSF fell under the US bankruptcy regime, LBSF also commenced proceedings against the BNY Trustee in the United States Bankruptcy Court for the Southern District of New York claiming that the Perpetual Noteholders[109] were not entitled to rely on the 'flip' provisions since these terms infringed the *ipso facto* principle under the US Bankruptcy Code (i.e. a principle analogous to the 'anti-deprivation' rule, albeit, as will be seen, the US doctrine is wider than the English principle).

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[106] In effect the 'anti-deprivation' principle, deriving from English common law, provides merely that a contract term purporting to remove a party's assets on its insolvency may be invalid.

[107] *See* ASHURST London, *supra* note 103.

[108] SIDLEY AUSTIN LLP, 2011. *English Supreme Court Unanimously Upholds First Instance and Court of Appeal Decisions in Perpetual/Belmont "Flip Clause" Litigation.* Structured Finance & Securitisation Update, August [online]. Available at <http://www.lexology.com/library/detail.aspx?g=6da251a1-9f33-4170-95ce-419d576ee49f> [Access time: May 2015].

[109] The US Bankruptcy Court did not consider the Belmont notes.

Essentially, the basic question that arose in the UK and in the US was whether the subordination of LBSF's ranking, on the occurrence of the Lehman Brothers insolvency, was void under either the English 'anti-deprivation' principle or the US Bankruptcy Code.

First, the proceedings commenced in the UK by Perpetual and Belmont Noteholders were heard jointly both at the High Court of England and Wales and before the Court of Appeal,[110] which held that the 'flip' provisions were enforceable as a matter of English law and, especially, did not violate the 'anti-deprivation' principle. Alternatively, if the clauses were capable of offending the 'anti-deprivation' rule, the rule did not apply in this case, because the 'flip' clauses took effect when LBHI (LBSF's guarantor under the swap) filed for Chapter 11 protection and not when LBSF subsequently filed for Chapter 11 protection and hence the effect of the provisions did not deprive LBSF of any property as a result of its own Chapter 11 filing.[111]

Meanwhile, the High Court of England communicated with the Bankruptcy Court in New York and, together they agreed that, in order to restrict the potential for inconsistent decisions between the two jurisdictions, relief would be limited to declaratory relief.[112]

On 25 January 2010, soon after the decision of the Court of Appeal, Judge Peck of the US Bankruptcy Court for the Southern District of New York held that the same 'flip' provisions in the Perpetual documentation violated the *ipso facto* principle and were void under US law (*Perpetual* case).[113] He took the view that as those clauses were contained in the trust deed, not the swap agreement, they could not benefit from the 'safe harbour' provisions of the Bankruptcy Code (see above section 2.2.3), which generally allow such clauses.[114] In other words, Peck granted summary judgment in favour of LBSF on its application for a declaration that the contract terms that modified LBSF's payment priority upon an event of default constituted unenforceable *ipso facto* clauses that infringed the US Bankruptcy Code.

The US Bankruptcy Court thus declined to be bound by the English decisions to the extent that those decisions gave no consideration to the Bankruptcy Code and the Court articulated the following guiding policy:

> Despite the resulting cross-border conflict, the United States has a strong interest in having a United States bankruptcy court resolve issues of bankruptcy law, particularly

[110] In particular: *Perpetual Trustee Co Ltd v BNY Corporate Trustee Services Ltd* [2009] EWHC 1912 (Ch), on 28 July 2009; and [2009] EWCA Civ 1160, on 6 November 2009.
[111] CLAYTON UTZ, 2011. *UK Supreme Court rules in favour of flip clauses*. Publications and News, August [online]. Available at <http://www.claytonutz.com/publications/news/201108/08/uk_supreme_court_rules_in_favour_of_flip_clauses.page> [Access time: May 2015].
[112] *See* note 102, p. 12.
[113] *Perpetual* case: *In re Lehman Brothers Holdings, Inc. v BNY Corp. Tr. Serv. Ltd*, 422 BR 407 (US Bankruptcy Court, SDNY, 2010).
[114] *See* REYNOLDS PORTER CHAMBERLAIN, *supra* note 101.

> in a circumstance such as this where the relevant provisions of the Bankruptcy Code provide greater protections than are available under applicable provisions of foreign law.[115]

However, *ipso facto* clauses are provisions in executory contracts[116] that modify or terminate a contractual right or interest in property due to the bankruptcy or financial condition of a company.[117] Two sections of the Bankruptcy Code effectively render *ipso facto* clauses unenforceable by stipulating that:

- Section 365(e): rights under an executory contract may not be modified or terminated solely as a result of the operation of a provision under that contract which is triggered by a bankruptcy filing;
- Section 541: a debtor's interest in property becomes the property of its estate in bankruptcy irrespective of any provision in an agreement, which is triggered by a bankruptcy filing, that purports to modify or terminate that interest.[118]

Judge Peck held that the 'flip' provisions in question fell within the scope of section 365(e) and 541 of the Bankruptcy Code and, being *ipso facto* clauses, were therefore unenforceable. In particular, his reasoning was based on the view that the Lehman entities were an 'integrated enterprise' and 'the financial condition of one affiliate affected the others' to such an extent that the first bankruptcy filing at the holding company level (LBHI insolvency) was sufficient to trigger the protections of the Bankruptcy Code for the swap counterparty (LBSF). Then the Chapter 11 filings of the Lehman entities formed a single event.[119]

This view clearly contrasted with the decision of the Court of Appeal of England and Wales that, as above-mentioned, considered that there was no breach of the 'anti-deprivation' principle since the trigger date was before the insolvency of LBSF.

The apparent inconsistency between the English decisions and the US judgment left not only the BNY Trustee in a less than ideal situation, but also all those involved in structured finance transactions with a US counterparty or a counterparty subject to US law (namely, a US nexus). In effect, the decision in *Perpetual* case stated as unenforceable clauses that are common in structured finance transactions where payments to a swap counterparty are

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[115] *See* MUGASHA, A., *supra* note 99, p. 572.
[116] An executory contract is one in which all or part of the required performance has not been done, that is, contract under execution.
[117] FRESHFIELDS BRUCKHAUS DERINGER, 2010. *A Perpetual headache: 'flip' clause declared unenforceable by US Bankruptcy Court*. Briefing, January [online]. Available at <http://www.lexology.com/library/detail.aspx?g=04741e49-4684-43c9-be2d-fb6a81cebaa2> [Access time: May 2015].
[118] CLAYTON UTZ, 2010. *US Bankruptcy Court flips English decision on flip clauses in Lehman Brothers case*. Publications and News, February [online]. Available at <http://www.claytonutz.com/publications/news/201002/05/us_bankruptcy_court_flips_english_decision_on_flip_clauses_in_lehman_brothers_case.page> [Access time: May 2015].
[119] *See* note 116.

subordinated if the latter has defaulted on its obligations. Moreover, the Judge Peck in reaching this decision did not apply the 'safe harbour' of Section 560 of the US Bankruptcy Code, which protects swap counterparties from the Code's general prohibition on *ipso facto* clauses. Exactly in this regard, on November 1, 2010, the International Swaps and Derivatives Association (ISDA) submitted an *amicus* brief to the United States District Court which gave the BNY Trustee leave to appeal against Judge Peck's decision. The Association, as *amicus curiae*, urged the Court "to reject the bankruptcy court's erroneous construction of the Bankruptcy Code's 'safe harbor' provisions for swap agreements."[120] Since, according to ISDA, the narrow reading of the 'safe harbors' provided by the bankruptcy court could undermine the Congressional intent to protect the derivatives markets from bankruptcy-law restrictions. Especially the *amicus* brief pointed out the fact that security arrangements (such as the trust deed and the Credit Support Annex) are crucial components of swap transactions even though separately documented, and participants in the swaps markets entered into them in reliance of 'safe harbour' protections for such arrangements. The bankruptcy court in the *Perpetual* case generated uncertainty about the protection for that transactions.

Nevertheless, there was no appeal in the US as a settlement between LBSF and the Perpetual Noteholders was approved by the bankruptcy court on December 15, 2010 and the litigation was consequently resolved between those parties. The US bankruptcy court decision accordingly remains law in the US and continues to create uncertainty over the enforceability of 'flip' provisions used in cross-border structured finance and securitisation transactions with a US nexus.[121]

From the other side of the Atlantic, the Supreme Court of the United Kingdom also permitted LBSF to appeal from the decision of the Court of Appeal. After the legal settlement in the *Perpetual* case, this appeal concerned only the notes held by the Belmont respondents (*Belmont* case).

Underlining the significance of the case, seven Justices of the Supreme Court heard the case rather than the usual five. Additionally, market participants interested to know whether the Court had resolved or confirmed the glaring disparity between English and US law concerning the enforceability of 'flip' clauses watched closely the case. On 27 July 2011, the UK's highest court reached the long-awaited decision in *Belmont* case[122] and finally clarified the interaction between complex financial arrangements and the 'anti-deprivation' principle

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[120] *See* INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, Inc., 2010. *BNY Corporate Trustee Services Limited v. Lehman Brothers Special Financing, Inc.* Amicus Brief, November 1 [online], p.1. Available at <http://www2.isda.org/functional-areas/legal-and-documentation/amicus-briefs/> [Access time: May 2015].

[121] *See* note 110.

[122] *Belmont Park Investments PTY Ltd v BNY Corporate Trustee Services Ltd and Lehman Brothers Special Financing Inc* [2011] UKSC 38.

enshrined in English insolvency law.[123] The Supreme Court unanimously dismissed the appeal of LBSF and upheld the decisions of the lower courts that the 'flip' provisions under consideration were valid and enforceable in this case and did not offend the 'anti-deprivation' principle under English bankruptcy law. Going into detail, Lord Collins and Lord Mance both gave leading judgments and, although in agreement as to their conclusion that 'flip' clauses did not violate the 'anti-deprivation' rule, differed in their reasoning. The remaining five Justices agreed with Lord Collins.

The Belmont judgement also provides clarification regarding the elements the English courts take into account in determining if the 'anti-deprivation' principle is engaged in a specific case. The key points in the judgement of Lord Collins were well identified by the UK law firm Travers Smith (2011):

- The 'anti-deprivation' rule will only apply where there is an intention to evade the insolvency rules. The intention is assessed objectively, so it is irrelevant whether or not the parties subjectively intended to evade the law.
- The courts should, to the extent possible, seek to give effect to contractual terms which parties have agreed, especially in cases of complex financial instruments.
- Therefore, provisions in commercial transactions entered into in good faith and without an intention to evade insolvency laws will generally fall outside the scope of the 'anti-deprivation' rule.
- The 'anti-deprivation' rule will not apply if the deprivation takes place for events other than bankruptcy (e.g. in this case, the proceeding bankruptcy of a related entity).

These key points emphasised that "it is a question of the substance of the transaction rather than its form which determines its susceptibility to the 'anti-deprivation' principle."[124]

In conclusion, the approach of the UK Supreme Court in this appeal reflects the desire of the English courts to give effect, as far as possible, to contractual terms agreed between parties, and eventually, in *Belmont* case the 'party autonomy' (or 'freedom of contract') effectively prevailed.[125]

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[123] PINSENT MASONS, 2011. Belmont Park Investments and the anti-deprivation principle: wider implications? *Butterworths Journal of International Banking and Financial Law* [online], October, pp. 574-575. Available at <http://www.pinsentmasons.com/PDF/BelmontPark.pdf> [Access time: May 2015].

[124] MAYER BROWN, 2011. *Anti-deprivation: a question of substance not form*. Legal Update, 29 July [online]. Available at <https://www.mayerbrown.com/publications/Anti-deprivation-a-question-of-substance-not-form-07-29-2011> [Access time: May 2015].

[125] *See* ASHURST London, *supra* note 103.

However, while it is obtained some clarity as to the position from an English law perspective, there are currently conflicting judgements in relation to the 'flip' provisions from the English and US courts. Moreover, the courts did not address the jurisdictional and conflict of laws issues, which will probably arise again in future multi-jurisdictional debt issuance programmes.

3.1.2 *MSHDA* case[126]

An important open question remained after the *Belmont* decision. The court found that the 'flip' clause was contained in a collateral document, not within the swap agreement itself. Would the bankruptcy court have invalidated the clause if it had been found within the swap agreement? The court's subsequent decision in *MSHDA* case suggests not.[127]

Michigan State Housing Development Authority (Housing) was party to an interest rate swap with LBSF before it filed for bankruptcy. The swap contained a liquidation paragraph, which provided in relevant part that:

> Calculation of the Settlement Amount of the swap upon termination would be performed using the "Mid-Market" method. However, if termination was a result of the bankruptcy of LBSF, then "Market Quotation" method would instead be used to calculate the Settlement Amount.

When LBSF filed for bankruptcy, Housing terminated the swap and, according to the liquidation provision, used the Market Quotation method to calculate (and then pay) LBSF the Settlement Amount owing.

Lehman argued that the swap's liquidation provision, switching the calculation method from Mid-Market to Market Quotation solely based on LBSF's bankruptcy filing, was an *ipso facto* provision invalidated by Bankruptcy Code section 365(e)(1). Lehman's motivation for making such argument? If Housing had calculated the Settlement Amount using the Mid-Market method instead of Market Quotation, Housing would have owed Lehman approximately $23 million more. Lehman argued that only a counterparty's acts, and not its related rights, are protected by the safe harbors. Accordingly, while the safe harbor permitted Housing to liquidate the swap, Lehman asserted that how to calculate the amount due in connection with such liquidation was not similarly protected.

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[126] *Michigan State Housing Development Authority v. Lehman Brothers Derivatives Products Inc., et al. (In re Lehman Brothers Holdings Inc.*), Adv. No. 09-01728 (Bankr. S.D.N.Y. 2013).

[127] HUNTON & WILLIAMS, s.d. *Sailing Without A Headwind: Structured Lending Market Embraces Bankruptcy Safe-Harbor Provisions*. Publication [online]. Available at <https://www.hunton.com/files/Publication/1b3530bf-7d52-4c04-ad7e-57c314caadbc/Presentation/PublicationAttachment/6e8b2c48-af40-45fb-9e1d-1c29be38bacd/Sailing_Without_a_Headwind.pdf> [Access time: May 2015].

Housing, on the other hand, argued that use of the calculation method provided for in the liquidation provision was clearly protected by Bankruptcy Code section 560's safe harbor as an integral part of the act of liquidating the swap.[128]

ISDA submitted a brief of *amicus curiae* in support of MSHDA's position, arguing that the Bankruptcy Code safe harbors protect the right to terminate, liquidate and accelerate swap agreements in accordance with their terms, and that the act of liquidating necessarily includes calculating the settlement amount owed in accordance with the contractually specified methodology. ISDA emphasized that such protections are necessary to insulate the financial markets from the uncertainty that would result if counterparties to financial contracts were not permitted to enforce their rights upon default.[129]

The question before the Court was whether the Liquidation Paragraph, despite its *ipso facto* nature, fell within the safe harbor protections under Section 560 of the Bankruptcy Code, which permits "the liquidation, termination or acceleration" of swap agreements.

In addressing the breadth of Section 560, the Court first noted that where the statutory language is clear, the court's duty is to enforce the statute according to its terms. The Court reviewed the ordinary meaning of the word "liquidation," and found that "liquidation" means "the act of determining by agreement the exact amount of something that otherwise would be uncertain." Based on this definition, the Court determined that the right to liquidate a swap agreement must mean the right to determine the exact amount payable under the swap agreement. Accordingly, the Court found that MSHDA's use of Market Quotation to calculate the settlement amount due to LBSF was a part of MSHDA's protected contractual right to liquidate the Swap Agreement. The Court noted that unless the act of liquidation is performed in accordance with the agreed method, the right to liquidate would lose all practical meaning.

The Court was un-persuaded by LBSF's argument that the right to calculate a settlement amount was ancillary to the right to liquidate, which was based on the Court's previous decisions in the *BNY Trustee*, *Ballyrock* and *Calpine Energy* cases. In each of these previous cases, the Court determined that certain ancillary or incidental rights fell outside of the protections of the safe harbor. However, the Court found that each of these three cases was distinguishable from the *MSHDA* case.

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[128] CHADBOURNE, 2013. *Surprise! A Good Decision for Derivatives Counterparties in the Lehman Cases*. Posted in Bankruptcy, December 23, [online]. Available at <http://www.zoneofinsolvencyblog.com/2013/12/surprise-a-good-decision-for-derivatives-counterparties-in-the-lehman-cases> [Access time: May 2015].

[129] INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION, Inc., 2012. *Michigan State Housing Development Authority v. Lehman Brothers Holdings Inc., et al*. Amicus Brief, August 20 [online]. Available at <http://www2.isda.org/functional-areas/legal-and-documentation/amicus-briefs/> [Access time: May 2015].

In the *MSHDA* case, the Court found that *Belmont* case was inapplicable because the Liquidation Paragraph was part of the Swap Agreement and the Liquidation Paragraph dealt expressly with the liquidation of the Swap Agreement. The Court noted that the act of liquidating and the method of calculation "are so tightly intertwined to the point that liquidation without a defining methodology is impossible to perform."

The MSHDA decision is important because it firmly establishes that calculation of a termination payment is an integral part of liquidation. In addition, the MSHDA decision places clear limits on the reach of the *Belmont* decision.[130]

[130] CADWALADER, 2014. *Lehman Bankruptcy Court Issues Safe Harbor Decision*. Clients & Friends Alert, January 6, [online]. Available at <http://www.lexology.com/library/detail.aspx?g=11fe0e46-d3f8-448a-a58a-478f06fd4291> [Access time: May 2015].

CONCLUSION

Since the outbreak of the recent financial crisis both public bodies and the private sector started to engage in the improvement of the market infrastructure for OTC derivatives. The G20 members, during the Pittsburgh Summit (2009), agreed on specific objectives in order to address structural weaknesses in the OTC segment. Such G20 commitments actually demand that market participants revise entirely how they trade and use OTC derivatives. Accordingly, there is uncertainty with respect to how the OTC derivatives market will appear in around ten years.

The overview of the history of these derivatives traded off-exchange has allowed to better understand the traditional characteristics of their market: in the OTC world contracts can be customized to the individual users' specific needs just thanks to the 'bilateral execution', that is, binding agreements are traded directly between two counterparties without the interposing of an exchange or other intermediary. Therefore, the OTC trading consists in well organized networks of trading relationships centred on one or more dealers.

The OTC derivatives market, in addition to the key advantage of creating new products to solve exactly the risk-management problems of its participants (i.e., constant product innovations), had at least until the 2008 financial crisis an important cost advantage over exchanges: the almost total lack of regulatory and supervisory regimes by public bodies. Confidence in the power of the industry to check risks and trust in the benefits of financial innovation brought public regulators to this aware inaction, which along with increased globalization and economic growth entailed an unwieldy proliferation of derivatives transactions.

Although the OTC derivatives are not intrinsically negative instruments the almost total absence of a their official regulation before the crisis has not driven the markets to exactly appropriate uses of these products, undermining safety and integrity of their trading.

In the wake of the global financial crisis, as above-mentioned, a radical shake-up of the OTC derivatives regulatory regime was carried out, and now there is no more an unregulated OTC derivatives market.

The regulators acknowledging the benefits of the standardized contracts and of trading on exchange platforms (price transparency, effective competition and a liquidity commonly continuous in character) introduced, after the recent crisis, electronic and multilateral trading

platforms specifically for OTC derivatives (i.e. SEFs and OTFs), and thereby some OTC derivatives contracts can no longer be traded in the typical manner, that is bilaterally.

Another change affects all standardized interdealer trades, which have to be cleared through central counterparties (CCPs) in order to limit the contagion risk. Nevertheless, a significant proportion of the derivatives market continues to remain non-cleared since instruments such as swaptions, cross-currency swaps and inflation swaps, though not regarded as suitable for central clearing, are vital for numerous entities to run their activities and to manage risk. However, global regulators encourage standardization requiring financial entities and systemically important non-financial firms to post initial margin on non-centrally cleared contracts. This margin requirement for non-standardized OTC derivatives raises their costs, in other words it aims to remove certain main advantages of these products: the low costs and the easy use. Consequently, some market participants subject to these more expensive capital requirements may move to centrally-cleared derivatives, and so involve a decrease in the bilateral trade. Especially the lower liquidity in the traditional OTC market concerns all those with a vested interest in the underlying (for instance companies), because they want to offload their idiosyncratic risks without too much difficulty and costs by means of the perfect hedges only available in the bilateral world.

Lastly, a post-crisis financial reform demands that all OTC derivatives be reported to a central trade repository, and therefore all derivatives transactions are finally disclosed to relevant authorities which can realize a more effective market surveillance.

The regulatory reforms across the world, aiming for the level playing field amongst the financial instruments, are therefore producing a convergence between OTC and exchange-traded markets. In practice, an OTC derivative when executed on a SEF or an OTF and promptly passed to a central counterparty resembles a lot a derivative product traded on an exchange. Moreover, the initial margin is demanded for almost all derivatives and many OTC contracts are centrally cleared.

In other words, these reforms attempt to increase the number of standardized derivatives traded by market participants, and always in this regard, the exchanges offering new products as alternatives to some OTC derivatives (i.e., the process also known as the ‘futurization of swaps’) contribute further to that standardization process.

Accordingly, the potential outcome is that a smaller quantity of customized derivatives contracts will endure and will be the only one to fill the bilateral OTC world, which will likely be less liquid and more costly following the various post-crisis reforms.

Despite these prospects that seem to blur the classic differences between the OTC derivatives market and the exchange-traded derivatives market, the data are still not supporting a structural shift of OTC derivatives to exchange-like platforms.

Even after the 2008 financial crisis the market for OTC derivatives continues to be much larger than the exchange-traded portion of the market. Moreover, the OTC derivatives market manifested during the past five years (2008-2013) a considerable resilience in volumes of market activity. In fact, as publicly reported by the Bank for International Settlements, the notional amount of outstanding contracts totalled $691 trillion at end-June 2014, that is, an amount above the pre-crisis levels, which reaffirms the systemic significance of the derivatives traded off-exchange.

However, the data still do not give evidence that the market share of multilateral trading platforms is enlarged because the trading obligations for OTC derivatives, besides taking some time, are not yet in force in many key jurisdictions (e.g., the EU). Thus, more time is needed to carry out a comprehensive assessment of the success of the regulatory reforms in meeting the G20's underlying goals.

Nevertheless, the present regulatory landscape denotes that the OTC markets will converge with the exchange-traded markets, notably there will not be an OTC derivatives market how the one that existed before the recent financial crisis, namely, an unregulated land where the finance industry has the full power.

Obviously, there is no certainty that these predictions for OTC markets will occur exactly, but according to the new rules for derivatives, the bilateral OTC world is heavily put to the test by the regulatory inconsistencies between the OTC products and the exchange-traded ones.

In brief, the study of the OTC derivatives market in many ways helped to identify the intention of increasing confidence in the OTC derivatives market through an ex-ante approach, which involves on the one hand the public regulation as a result of the recent financial crisis and on the other hand the ISDA Master Agreements through which the private association ISDA exerts some control of the sector. In addition, the role of judges in the resolution of disputes about complex financial transactions should not be overlooked because with their ex-post intervention, if not exact, can pose risks to the market.

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FURTHER READINGS

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